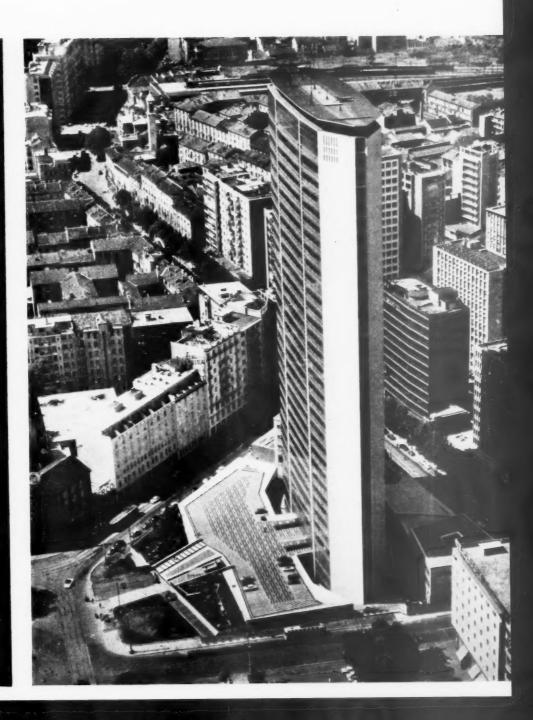
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# For utmost efficiency in Thermal Insulation and Sound Reduction...

The marked success of TOMO coupled double-glazed WINDOWS is due to the fact that two panes of ordinary glass are carried in separate sashes, which in turn are coupled together in such a manner that air-filtration can take place between the panes. This time-honoured method of coupling, which is used extensively throughout Scandinavia, not only prevents condensation forming between the panes but allows the sashes to be opened for the purpose of cleaning the insides of the two panes and for gaining access to a TOMO pleated or venetian blind that can be housed between them.

TOMO coupled double-glazed WINDOWS also offer the advantages of finely-controlled ventilation and total indoor window-cleaning. They are suitable for inward or outward opening, and can be top-hung, bottom-hung, side-hung or pivot-hung.

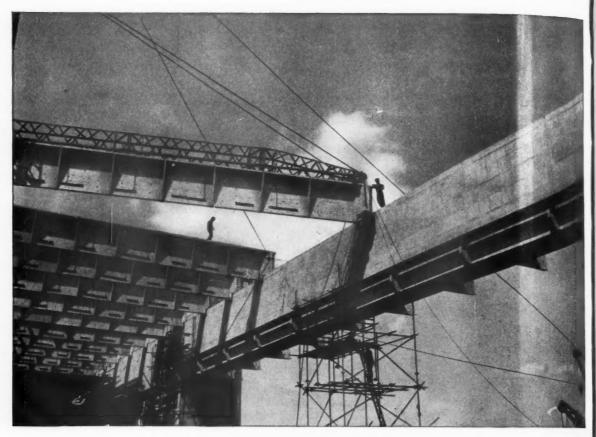
#### **City of London College Extension**

Architects: R. E. Enthoven, F.R.I.B.A., F.S.A., and R. J. Mock, A.I.A.



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# CUBITTS COMPLETE ENGINEERING BASE FOR

... ahead of schedule

Three months ahead of schedule, Cubitts handed over two giant hangar blocks, workshops and offices to British European Airways. These buildings make up a £7,000,000 engineering base at London Airport to cope with BEA's ever-increasing flow of air traffic.

In this project Cubitts used the latest techniques of mechanisation and precision planning. Thousands of concrete components were factory precast by Concrete Development Co. Ltd. for accurate and rapid erection at London Airport.

Each of the giant hangars has five bays 180 ft. long, arranged to give a clear floor area of 900 ft. by 135 ft. Support columns for end and rear walls were of precast concrete—the rear wall columns being 65 ft. long and weighing 18 tons.

For future use, the 20 ft. module of the rear columns was broken at the centre of the bay to allow for a 40 ft. opening to accommodate even longer aircraft.

This new BEA engineering base is one of the greatest construction projects completed in Britain since the war. It is yet another example of how Cubitts' go-ahead approach is helping industry.

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Mr. J. M. & Hann says: "V BEA. C ticularly success pre-plans

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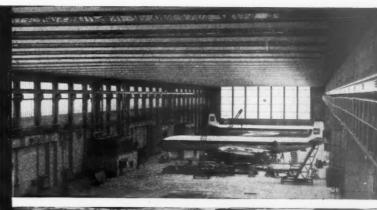
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## RECORD IN ROOF CONSTRUCTION

In the new BEA hangars, Cubitts
used the greatest
amount of tubular steel
ever employed for
roof construction in Britain.



This aerial view shows the great length of the four maintenance hangars each consisting of ten bays for servicing and repairs. The new administrative block at the southern end of the hangar tarmac is completely soundproofed and air-conditioned.







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Mr. J. M. Harris, Managing Director of Holland & Hannen and Cubitts (Great Britain) Ltd., says: "Willing co-operation at all times between BEA. Consulting Engineers and Cubitts, particularly in the initial stages, was the key to the success of this project. It facilitated realistic pre-planning, and this ensured economical yet speedy construction. BEA's completion requirements were satisfied with the reliability so essential for this project and for industrial development generally."



Mr. Anthony Milward, Chief Executive of BEA says: "As a vital requirement of BEA's expansion programme, it was essential to complete the Engineering Base on scheduled dates. Co-operation between ourselves, our consultants and Cubitts solved the enormous planning and co-ordination problems. This great structural project demanded the most up-to-date construction skills, yet the job was completed ahead of schedule and within the budget estimates".

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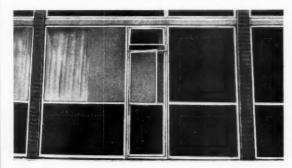
## at Europe's largest air hotel



This view of the bedroom block and escape staircase illustrates the contrasting blue and white colour scheme chosen for Skyway. The blue Plyglass infilling panels are backed by Thermalite insulation blocks. With quarter inch glass throughout the building, this effectively reduces airport noise to a minimum.

With years of experience in catering for the traveller, Skyway Hotels Ltd. had no doubt about the way they wanted to build at London Airport. A room for the night or a few hours, breakfast at mid-day, or a banquet at short notice for a party delayed by fog—these are a few of the things today's air passengers may need. And, of course, the right atmosphere must be part of the service. Williams & Williams purpose made steel windows were specified throughout this contract. Amongst

its requirements the brief called for maximum sound insulation and a creative use of exterior colour. In addition, the installation had to keep pace with an eight months' building schedule. Skyway was handed over three weeks ahead of time—and has proved to be just what the traveller wanted. A new bedroom wing, commissioned soon after the hotel opened, has just been completed. Once again Williams & Williams purpose-made windows were used throughout.



For bedrooms at ground level a stall door was specially designed to give direct access to a car park outside. The clean, simple lines of the general design are preserved by installing the opening window and ventilator light in the upper half of the door.

Architects: Fitzroy Robinson & Partners. Contractors: Bernard Sunley & Sons Ltd.



In the shopping arcade, passengers can make their purchases and then enjoy a few moments peace and quiet between flights. A feature of the arcade is the glazed front set at an angle. These Williams & Williams windows were specially designed to bring in the maximum amount of light and make room for the plant trough.

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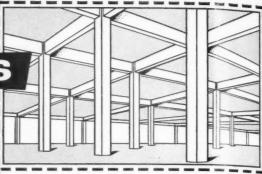
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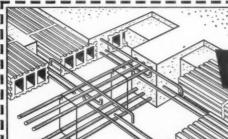
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### R. C. FRAME

and floors (in-situ construction)





#### **HOLLOW-TILE FLOORS**

(in-situ construction)

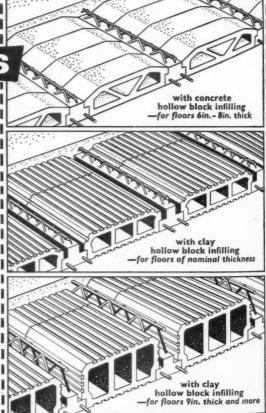
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A successful compromise between a conservative exterior and an adventurous and modern interior has been made at the Ionian Bank's building in Coleman Street, London E.C.2. Five of the Bank's directors share a large first-floor office. The elimination of excessive noise was considered essential and has been achieved by the use of Armstrong Travertone tiles. The superb decorative effect of these fire-resistant mineral wool tiles has enhanced the appearance of the room, where the individual tastes of the five directors have been effectively blended.

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The directors' office in the Ionian Bank. Architects: Guise, Davies & Upfold Acoustic contractors: Horace W. Cullum & Co. Ltd.

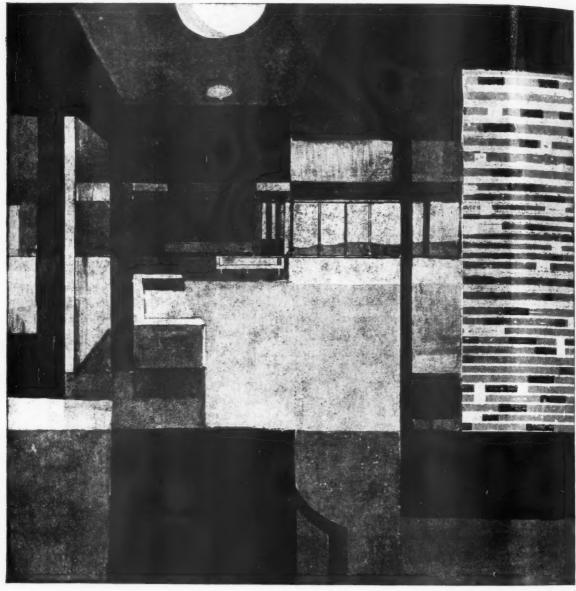
> The next advertisement will feature the Roman Baths at Bath





Armstrong Cork Company Ltd Acoustics Department Carlisle Road, Colindale, London N.W.9 Tel: COLindale 9744

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# MAGNET OUTSIDE\*

means just that... But means it

An interior paint decorates: provided it is the right colour, has a good finish and doesn't actually fall off the walls that is - more or less - the end of the matter.

An outside paint, on the other hand, must provide protection as well. If it doesn't it won't even decorate for long.

Thus, though all paints can be used indoors, only some can be used outside.

How to tell which is which? Good outside paints contain white lead. Most good primers and undercoats do, but the painting system which has a white-lead-based, high-gloss finishing coat as well is MAGNET.

Magnet finishing paint is scientifically formulated to resist the weather. The medium is an alkyd-resin varnish which, besides giving the paint a brilliant and lasting gloss-and a drying time of 3 to 4 hoursmakes it largely self-levelling and thus free from brush marks. The pigments on which its remarkable performance depends are titanium dioxide and, of course, white lead. The titanium dioxide gives Magnet its high obliterating power and resistance to chalking: the white lead, its durability, resistance to penetration by water, and the elasticity which prevents it from cracking and flaking.

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\*where paint must do more than decorate



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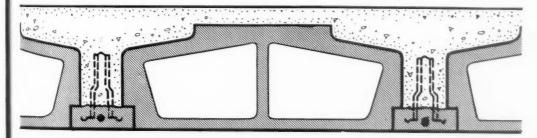
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The Stoll Theatre and Office Block, Kingsway, London WC2 in which the Omnia Floor was used throughout, supplied by Atlas Stone. Architect: Lewis Solomon, Kaye & Partners Consulting Engineer: John DeBremaeker & Partners Quantity Surveyor: Basil A. Cohen, FRICS Contractor: Token Construction Co Ltd



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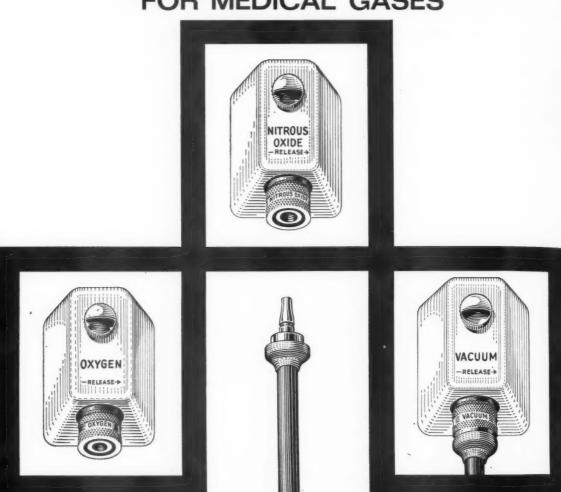


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Architects: Slater & Uren, F/FRIBA
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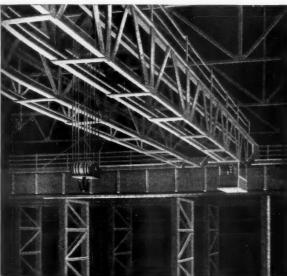
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## SWEDISH PERSTORP DATA SHEET



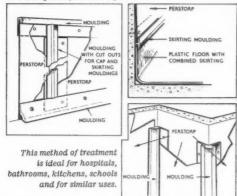
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- 8 Finally, screw on skirting, using rubber cement or mastic to waterproof joint if required.



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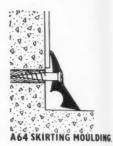
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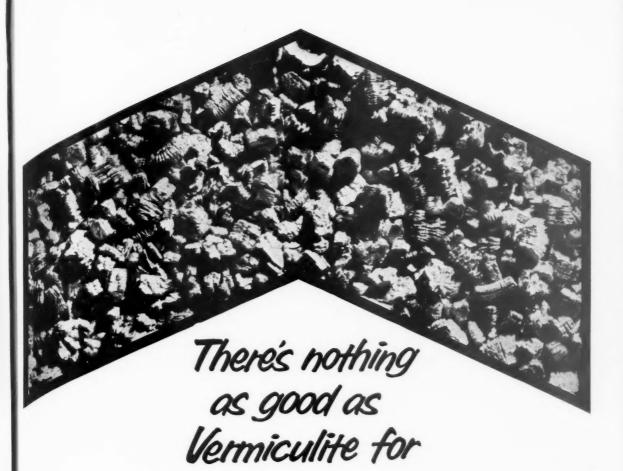
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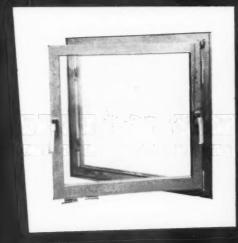
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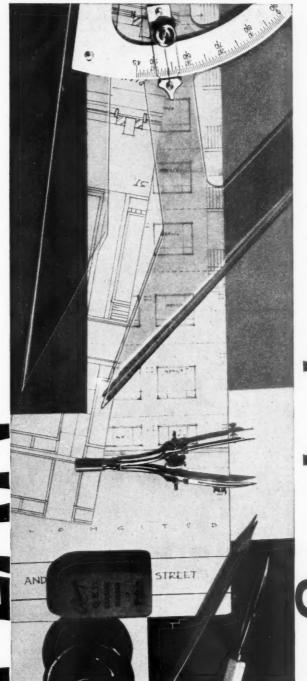
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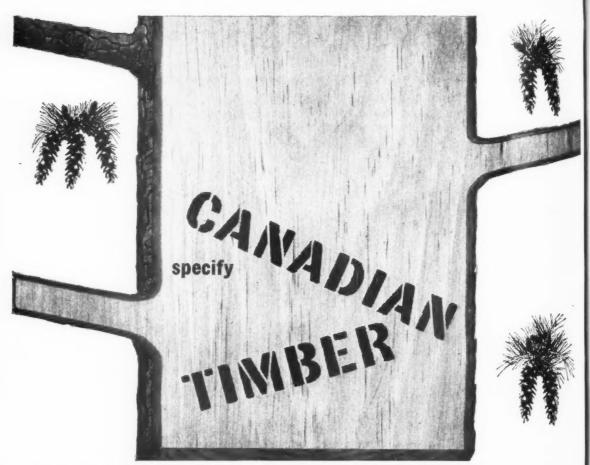
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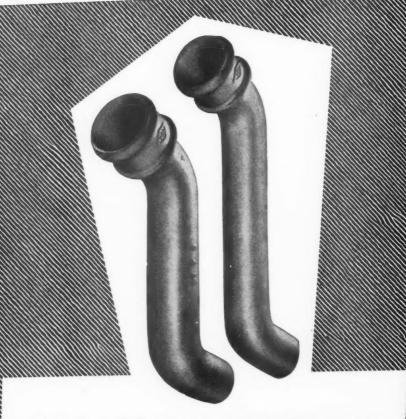
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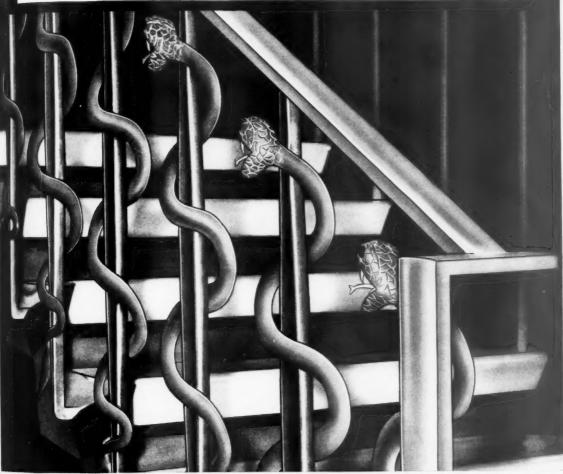
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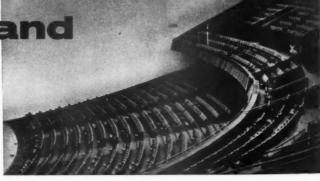
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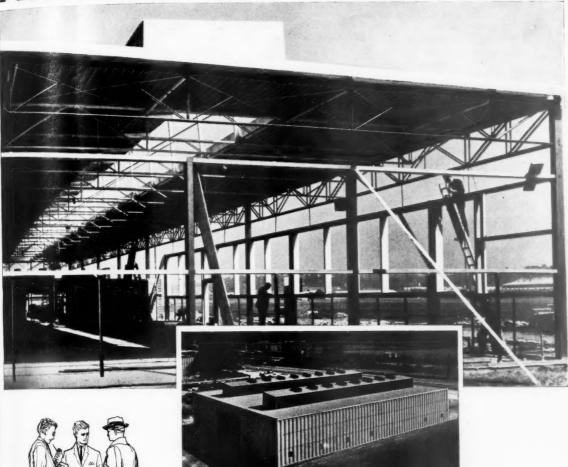
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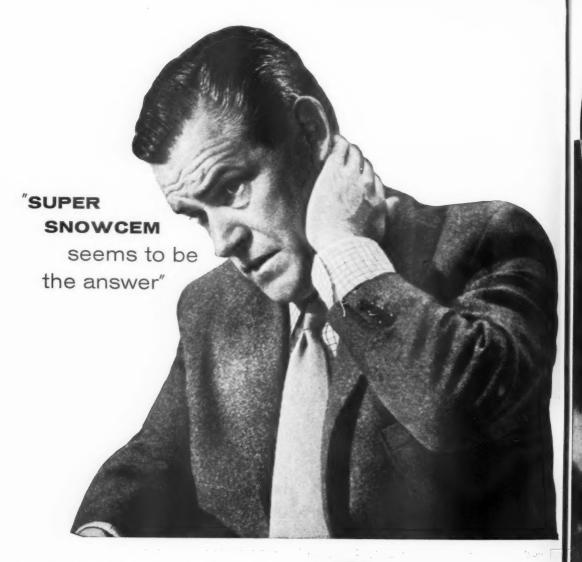


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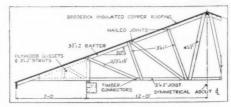
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The Pirelli Building, Milan.
See 'The History of the
Immediate Future' by
Dr Reyner Banham
(Publifoto, Milan)

## **Diary of Events**

Until 13 May

Exhibition of the drawings submitted by the six finalists in the second stage of the competition for New Hospital, Boston, Lines. Monday to Friday 10 am to 7 pm, Saturday 10 am to 5 pm.

9 May, 6 pm
Special General Meeting and Annual General Meeting.
The Institute of Landscape Architects. Symposium on 'The Organisation of Space in Housing Neighbourhoods'.

17 May, 6 pm
 20 to 22 May inclusive
 Annual Discourse by Alistair Cooke.
 RIBA offices and library closed for Whitsun holiday.

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27 May, 2 pm Regional meeting at the Queen's Hotel, Leeds. 1 June, 6 pm The Yerbury Foundation. 'Automation and A

The Yerbury Foundation. 'Automation and Architecture. The Contribution of the Designer to Management Efficiency', by Gordon Friesen, FACHA. Chairman: W. Tatton Brown [A].

27 June, 6 pm General Meeting.

General Meeting. Council Election Results. Presentation of 1960 London Architecture Bronze Medal. Presentation of Royal Gold Medal to Lewis Mumford.

## Fees for repetitive housing

In 1944 the Institute agreed with the Ministry of Health, then responsible for housing, a special scale of fees for housing work. As the result of the blitz, the decay of old houses, and the complete stoppage of house building for six years, a tremendous programme lay ahead. The profession's contribution towards this national need was the acceptance of a very low level of remuneration. Apart from two 20 per cent increases in 1949 and 1955 the scale still remains basically the same, though both building costs and the expenses of the architect's practice have soared.

A false assumption was made. It was that municipal housing estates would continue to consist of pairs of standard-type houses dotted along pre-arranged roads; in fact as recently as 1956 negotiations revealed that the Local Authorities' Associations thought that the architect's work still involved little more than that. Continuous improvements in housing design have been made and these have resulted from a continuously increasing effort on the part of architects. Now the need to build to much higher densities on the limited amount of land available, the provision of a garage for every dwelling instead of, say, one in ten, and the desirability of segregating pedestrian and vehicle, have made designing a housing scheme a highly complex task demanding great skill and considerable effort. To produce good architecture on the present Housing Scales meant either setting no value on the principal's long hours of work or, in the bigger practices, subsidising housing work from the income on buildings of another category.

The history of the RIBA's attempts to lift housing fees to an economic level makes a long and sorry story. In 1950 proposals for a drastic revision, basing the fees on a percentage of the cost of building rather than on a fee per dwelling, were rejected. From 1955 to 1959 negotiations proceeded with the Local Authorities' Associations. Though the Institute then asked only for fees amounting to  $1\frac{1}{2}$  per cent on projects of any size, the negotiations broke down. In June 1960 the Council decided to withdraw, at a date to be determined later, the existing scales for both houses and flats and to introduce a new scale, covering all types of dwellings, based on a percentage of the cost.

Drafts of a new scale went through successive processes of simplification until the stage was reached where clearly the normal RIBA scale could be adopted with reductions in respect of the abnormally large element of repetition. The Allied Societies were consulted and made valuable comments. At succeeding Council meetings various modifications were agreed, particularly the elimination of further reductions on the architect's fees where consultants are employed.

The final position is this: On 1 June the present scales for State Aided Housing and Multi-Storey Flats will be withdrawn. There will be no *new* scales to replace them but instead the RIBA Scale of Professional Charges, as set out in the 'little grey book' will be applied to all Repetitive Housing work. In the application of the scale, however, a reduction *may* be made, by prior agreement, in respect of those parts of the work which are identically repeated, i.e. the superstructure of a particular house or block of flats.

The use of the *Application* will be ubiquitous. Except where services are provided for the private enterprise builder for which charges are based on the selling price of the house, it will apply to every client – Local Housing Authorities, Government Departments, Boards and Commissions, Housing Associations, County Councils (e.g. for their Police Houses) and Private Housing built by Contract for a developer. Conformity with the scale will be obligatory.

From 1 June the architect's reward for his contribution to the national housing endeavour will at last be commensurate with the degree of professional skill required and the amount of effort needed. Housing Medal competitions have been reintroduced, and several open architectural competitions in this field have recently been launched. These should provide additional stimuli to the creation of first-rate Housing.

CLIFFORD CULPIN [F]

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## Council Business

The Council met on 11 April. In the absence of the President abroad Mr Frederick Gibberd, Vice-President, took the Chair.

It was reported by the Secretary that the Jury entrusted with the award of the RIBA Architecture Bronze Medal in the area of the Liverpool Architectural Society had made it in favour of the 'Brown House', Eleanor Road, Bidston, Birkenhead, designed by Messrs Nelson and Parker (Mr J. O. Nelson [A] and Mr J. R. Parker [A]). Contractor: Messrs J. L. Rawsthorne Ltd.

## The Annual Programme 1961-62

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This year a new method has been adopted for drawing up the Annual Programme of Events at the RIBA.

The chairmen of committees have met and discussed the annual programme under the chairmanship of the President. They were in general agreement that the programme ought to reflect and draw ideas from each major sector of the Institute's work, and that the overall pattern ought to be conceived and controlled by a central committee of chairmen, led by the President.

A number of changes were agreed by the committee. In future the President's customary Address to Students and the Criticism of Prizes and Studentships will be no longer be given, as the Officers of the Board of Architectural Education have more elaborate proposals that will replace them.

The President's Inaugural Address introducing his second vear of office will also be omitted.

In the new programme the customary introduction of new members at general meetings will be dropped, and an informal reception will be held twice a year at which they will meet the President in a truer sense.

There will be no 'General Meetings' carrying implication of prestige as distinct from other evening meetings. The President will take the Chair or not, according to availability

and subject-matter. When he himself cannot be present the name of the Chairman deputising will be announced in advance

The Committee were also in favour of courses/conferences of not less than one day as the best means of sustained instruction for the profession. That while it was a proper function of the RIBA to set up prototypes for refresher courses, responsibility for actually holding them should be delegated to the Allied Societies and Schools of Architecture.

In the light of this new approach a framework for the Annual Programme 1961–62 was considered by the Council, and after discussion, approved. It is given in outline below under main heads and sub-divisions. The details have still to be filled in. The number of meetings proposed in each category is given in brackets.

1. Official Occasions (3): Annual General Meeting, Royal Gold Medal Presentation, Annual Discourse. (Inaugural Address but not in 1961.)

2. Meetings aimed at the Lay Public (4), e.g.: lectures for interested adults on the lines of the popular Christmas Holiday Lectures for Children.

3. History; Scholarship; and Theory of Architecture. While there should always be room for two 'Learned Society' type meetings, some subjects with limited or specialist appeal might be included in the Library Group's programme.

4. Exchange of Views and Information within the Profession. Under this main head the following sub-divisions were distinguished:

(a) Controversial Issues (1), e.g.: topical questions such as the package deal; two-tier profession, etc.

(b) Specific aspects of an Architect's Responsibility (4), a wide field covering subjects dealing with legal aspects, office organisation, behaviour of new materials, etc.

(c) Architecture and Buildings (3). At this kind of meeting selected buildings would be described in detail and analysed. This would fill a noticeable gap in the programmes.

(d) General. This category is left open to include interesting and entertaining talks, e.g. illustrated descriptions of travel, etc.

## **RIBA Topics**

#### Regional Meeting at Leeds

A notice of this meeting of RIBA members in the north of England at the Queen's Hotel, Leeds, on 27 May, appeared in the March JOURNAL.

The meeting will be open to members, students and probationers, and the agenda will be arranged so as to ensure that part of the time will be spent discussing the most important current issues, with ample time in addition for questions on any other topic. The President RIBA, the Hon. Secretary, the Hon. Treasurer, the Chairman of the Allied Societies Conference, at least one other Vice-President and the chairmen of the Public Relations Committee and the Practice Committee will be present.

The meeting will begin at 2 pm, and until 3.45 there will be discussions on two, or possibly three, major topics. Then there will be tea from 3.45 to 4.15, and an hour from 4.15 to 5.15 for a general session of questions from the floor to the platform party.

At 6 pm a lecture 'America Today: A Review of Planning and Architecture', will be given by Mr Percy Johnson-Marshall [A], senior lecturer in architecture at Edinburgh University who is in charge of the new Civic Design course there. He will talk about his extensive tour of the United States last year, and will use three projectors. The lecture is open to non-members.

There will be a dinner at the Queen's Hotel afterwards, and members who wish to come to it are asked to inform the Secretary of their Allied Society as soon as possible.

## The TPI Gold Medal 1961

At their meeting on 1 March the Council of The Town Planning Institute unanimously resolved that Sir William Holford, PPTPI, be invited to accept the Gold Medal of the TPI. Sir William has declared his willingness to receive the award and has expressed his appreciation of the Council's decision.

The presentation to the President will be made on 4 October.

The Gold Medal is awarded by the Council of the TPI for outstanding achievement in the field of Town and Country Planning and is international. Three awards have previously been made to Sir George Pepler (1953), Sir Patrick Abercrombie (1955) and Mr Lewis Mumford (1957).

## Yerbury Foundation Lecture

A lecture organised by the Yerbury Foundation on 'Automation and Architecture – the Contribution of the Designer to Management Efficiency', will be given by Mr Gordon Friessen, FACHA, on 1 June at 6 pm at the RIBA. Mr W. Tatton Brown [A], Chief Architect, Ministry of Health, will be in the Chair. Tickets are not required.

#### **IUA Congress**

The Congress office would be grateful to receive offers of help from students with motor-scooters to assist with communications between the Congress Headquarters and other Congress points from 3–7 July.

## ARCUK: A Reminder

In their report to the Architects' Registration Council on a case recently tried by them, the statutory Discipline Committee added the following rider to their findings:

'Arising out of the evidence given in this case, the Committee think it desirable to call the attention of the Council to what appears to be a fairly common practice in these days of architects preparing plans for a development scheme without in fact having received instructions from a client to do so. Such a practice may, in certain circumstances, amount to touting; and although this matter was not an issue in this case, the Committee are of the opinion that the Council should give serious consideration to the question and its implications, and make a pronouncement thereon for the guidance of the profession.'

That part of the evidence which prompted the rider may be summarised as follows:

'X', an architect in private practice in a provincial city, knowing that a certain local site belonging to the City Corporation was likely to be developed, prepared a scheme for its development, without having been instructed or in any way commissioned to do so. 'X' then sought help of another architect, 'Y', in finding contacts with property developers who might be financially interested in his scheme. 'Y' approached a firm of estate agents, who in turn approached a company of property developers, who eventually became interested in and were prepared to undertake the development of the site on their own terms. During the course of the subsequent negotiations the original site was considerably enlarged; 'X' and 'Y' prepared many drawings, wrote several reports, attended numerous meetings, and journeyed between London and the provincial city. Neither of them received any fees either from the estate agents or from the company; it was always understood as between the estate agents and 'Y' that the former would not pay any remuneration for the services rendered by the two architects; and the only contractual obligation in respect of the architectural services that the property developers undertook was to employ 'Y' and to pay him fees on the basis of 6 per cent if they obtained the contract with the City Corporation to develop the site: no contract, no fees for the architects. In this latter respect, the architects were, unlike the legal advisers engaged by the company during the negotiations, in the same position as the estate agents.

The Council having examined the question raised by the Discipline Committee in all its aspects and having consulted the views of the architectural constituent bodies thereon, wishes to bring the following considerations to the notice of architects:

1. The general rule must be that an architect should undertake a commission only on the instructions of a client on a contractual basis.

Unless there is a contract the parties have no rights or liabilities towards each other; and since one of the rights of the architect created by the contract is that he shall be paid the agreed – or if there is no agreement, a reasonable – renuneration for his work, it is in the architect's own interest that any work he undertakes should from its commencement be on a contractual basis.

2. The Code of Professional Conduct, whose main object is the upholding of professional standards in the interests of both the public and the profession, gives explicit guidance as to the proper conduct of architects in all circumstances: (i) it provides that the services of an architect shall be engaged for fees based on a recognised scale, and it enjoins him to inform the client at the outset of the scale of charges to be applied and of the conditions of his engagement (Principle II); (ii) it forbids him to solicit business; and specifically mentions the submission of plans to possible clients without having been commissioned to do so, as an example of such solicitation (Principle III); (iii) it forbids him to compete with another architect by means of a reduction in fees or by any other inducement (Principle VI); and (iv) it warns him against

placing himself in a position in which his interest brings him into conflict with his professional duty (Principle VIII),

The Council hopes that by restating and reminding the profession of these well-established principles of conduct, the mischief which the Discipline Committee warned against will be arrested.

#### The Institute's Publications

The publication of the new Certificate Book (see leaflet inset in this JOURNAL) represents one of the last stages in the Institute's programme of redesigning its publications. The completion of the programme of design work was reported in the April issue, and many members will have seen the interesting 'before and after' exhibition at headquarters which was on show during the first half of April. It is hoped to bring back this display at a later date when more will be in print.

One aspect of the programme of work was that it revealed a number of publications which receive little or no publicity. Examples are the Code of Procedure for Selective Tendering issued by the National Joint Consultative Committee of Architects, Quantity Surveyors and Builders (price 2s.), Notes on Heads of Agreement for Partnership and a memorandum on the Formation of Service Companies by Architects (both free). From the Sir Banister Fletcher Library: the Catalogue of the Burlington-Devonshire Collection: Part I – Drawings of Inigo Jones, John Webb and Lord Burlington (price 5s.) and the Catalogue of Architectural Drawings and Watercolours by John Sell Cotman (price 1s. 6d.).

These are but a few of a number of additions which will eventually be made to the Institute's publications list, at present under revision.

Those members interested in acting as arbitrators will have noted the note in the April issue of the JOURNAL about the course of lectures on arbitration which is to be arranged by the Institute of Arbitrators in conjunction with the Practice Committee. It is therefore an opportune moment to draw attention to the Institute's booklet 'The Architect as Arbitrator' prepared by the Practice Committee which gives guidance on the responsibilities and duties of an arbitrator and the conduct of arbitration proceedings. The booklet is priced 5s.

Offices and individual members who would like to be placed on the mailing list which is being compiled for information about new publications, etc., are asked to send in their names to the Publications Office.

Finally, a recent reorganisation of the publications stocks brought to light a few copies of two RIBA reports, long since out of print but still of interest. These are the reports on 'The Orientation of Buildings' (1933) (price 5s. – 12 copies only available) and 'The Construction of the Vaults of the Middle Ages' (1910) (price 2s. 6d. – 17 copies only available).

## RIBA/Ideal Home Magazine, Group Housing Design Com-

The Council of the RIBA have given approval to the launching of a competition jointly with *Ideal Home* Magazine with the object of encouraging developers, builders, and local authorities to make greater use of architects' services when designing group housing, including layout of the whole area.

Two sites have been offered for development in connection with the competition – one of 4½ acres at Harlow New Town and one of about six acres at Stockport. In both cases a mixed development is envisaged with houses, flats, and maisonettes of varying sizes being subsequently made available for sale.

The President of the RIBA has appointed as assessors for the competition: Sir Basil Spence, OBE, TD, RA, ARSA, RDI, PPRIBA; Mr D. E. E. Gibson, CBE, MA, MTPI [F], and Mr G. Grenfell Baines, OBE, DIP. TP, AMTPI [F]. Details of the competition will be announced in due course.

## New Hospital for Boston, Lincs.

All the designs submitted in the two-stage competition promoted by the Sheffield Regional Hospital Board are on

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show on the second floor at the RIBA, until Saturday 13 May (Monday to Friday 10-7; Saturdays 10-5).

## Paris Pissoirs doomed

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The news that Paris vespasiennes are to go is a sad reminder of the inexorable march of progress.

After what must have been an all too human debate, the Paris municipal council decided that by the end of 1963 the last Paris pissoir must be removed. Since these constructions were presumably examples of mass-production of their time—whatever that was—a pleasant note might have been added to the IUA Congress here in London if the organisers could have arranged for one of the displaced *objets* to be imported to the South Bank within the ambience of Theo Crosby's buildings as a working exhibit and to make visitors from abroad feel at ease.

## The Organisation of Space in Housing Neighbourhoods

The Institute of Landscape Architects is holding a Symposium on 'The Organisation of Space in Housing Neighbourhoods' at the RIBA on Tuesday 16 May 1961.

The Chairman will be Miss Jocelyn Adburgham, MTPI, FILA [L], and the principal speakers will be Mr Richard Arioli, landscape architect in charge of parks and open spaces in Basle; Mr Paul Ritter, MCD, AMTPI [A]; and Mr Peter Daniel, MCD, AILA [A].

The registration fee is 30s. for non-members of the ILA, 20s. for members and 15s. for students. This includes morning offee, buffet lunch and afternoon tea. A report of the symposium will be sent free to each delegate.

Registration forms are obtainable from The Secretary, ILA, 1 Park Crescent, London, W1.

At the ILA Symposium held last May, Margaret Willis analysed the sociological needs of various age groups in her paper; David Randall explained his researches into children's casual play habits which disclosed a perambulatory pattern of play; and Bodfan Gruffydd discussed some of the solutions which had been applied to these problems in Crawley, concluding with these remarks:

'In the broadest sense landscape architects create human environments, environments in which we can all enjoy working, moving and relaxing. The materials which are manipulated to create these environments may be static and hard, but more often they are growing and soft. It is only by weaving these into the fabric of human behaviour that healthy growth can be assured in populous places. This requires extended briefs which must probe into the sociological field to find an acceptable balance of human and age needs.'

It is felt that the design and space problems of landscape organisation in the urban scene could profitably be pursued from the point reached in the papers and discussion of last year's Symposium. It is proposed again to divide the Symposium into four parts:

1. Dealing further with the needs of children, teenagers and adults in housing neighbourhoods and making recommendations on the areas and juxtaposition of space needed therefore.

2. The use which is being made of public and private space at present, and, if not positively useful, the aesthetic contribution.

3 Investigation of the types and layouts, incorporating houses and/or flats suggested by the foregoing analysis.

4. Consideration of how space should be allocated and organised in housing neighbourhoods generally as a brief for the landscape designer and planners.

It is believed that in this way a useful contribution to the solution of this problem would be made by landscape architects at the technical level.

The terms of the general sanction contained in the letter of 10 March 1961, received from the Ministry of Housing and Local Government, are as follows:

The Minister of Housing and Local Government has

sanctioned under the proviso to section 228(1) of the Local Government Act, 1933, the payment of (a) any county council, metropolitan borough council, urban district council, and rural district council, and (b) any county borough council and non-county borough council where the expenses are properly chargeable to an account which is subject to district audit, of any of the under-mentioned expenses which may be reasonably and necessarily incurred in connection with the attendance of not more than two appropriate officers of the authority at the Symposium arranged by the Institute of Landscape Architects, to be held in London on the 16 May 1961:

- (i) actual travelling expenses and/or subsistence allowances at the appropriate rates;
- (ii) delegates' fees;
- (iii) miscellaneous expenses.

This sanction has been given subject to the production of proper vouchers to the District Auditor.

Individual applications to the Minister will not be necessary so long as the expenditure is within the limits indicated.'

## A policy for the education of the Landscape Architect

The Education Committee of the Institute of Landscape Architects concerned with seeking information to guide future attempts to secure adequate training facilities for the profession, has conducted extensive inquiries during 1960 on the recruitment, training and employment of landscape architects. This information has now been published in the form of a Report.<sup>1</sup>

It was found that while landscape work cannot be described as lucrative, it is at least sufficiently remunerative for members to work and live. Four per cent of those replying to a question-naire received an income of between £750 and £1,250. Twenty-six per cent of the replies came from members who were employers with their own practice. Employees in private practice amounted to 13 per cent whereas local planning authorities, and official, e.g. New Town, authorities, employed 30 per cent and 24 per cent respectively. So it was obvious that public employment, particularly with local planning authorities, had assumed considerable importance.

Further inquiries in the questionnaire covered professional experience, training and qualifications, and teaching of land-scape architecture.

An attempt was made to plot trends in the recruitment, training and employment of landscape architects.

It is generally agreed that employment of landscape architects is increasing and that public opinion and official policy show a new interest in our existing landscape and a wish to enhance it so far as economic and other considerations make this possible. A slight drop was confirmed in future estimates of employment by New Town Development Corporations, but County Planning Authorities gave very encouraging information.

It seemed that many employers, whilst not yet able to employ the 'pure' landscape architect were anxious to have landscape skills available and need people dually qualified in architecture and town planning as well as landscape design.

Most members qualify for Associate membership of the Institute by direct entry through the medium of the Final Examination. Syllabuses for this and the Intermediate examination are comprehensive and standards appear to be high.

New courses have been proposed at Birmingham, Cheltenham, Dundee and Edinburgh. It appears that most will be some form of extension of existing training in architecture or planning and not securely enough based to be regarded as separate schools or departments of landscape architecture, able to recruit students from the country as a whole or to provide comprehensive training to produce fully qualified landscape architects.

<sup>&</sup>lt;sup>1</sup> Report on the recruitment, training and employment of Landscape Architects, published by the Institute of Landscape Architects, price 3s. post free.

## RIBA Scales of Fees for State-Aided Housing Schemes and Multi-Storey Flats

The Council have decided that the Scales for State-Aided Housing Schemes and State-Aided Multi-Storey Flats be withdrawn on 31 May 1961. From 1 June 1961 the normal RIBA Conditions of Engagement and Scale of Professional Charges will apply to all work previously covered by the RIBA Scales of Fees for State-Aided Housing and State-Aided Multi-Storey Flats. The following Application of the Scale to Repetitive Housing Work has been drawn up and will be effective from 1 June 1961.

## Application of the RIBA Scale of Professional Charges to Repetitive Housing Work

- 1. Except as hereafter mentioned, the RIBA Conditions of Engagement and Scale of Professional Charges apply to any scheme of housing of a repetitive character and cover all forms and sizes of dwellings within any such scheme.
- 2. The architect's fee shall be in accordance with Clause 1 (New Works) of the RIBA Scale of Professional Charges, but taking into account the possibility of repetition in the use of type drawings, the fee may be reduced as follows by prior written agreement, in substitution for the provisions of Clause 2(i) of that Scale:

Where a House Type or Flat Block Type is repeated in the same scheme, or where it has been used in a previous scheme for the same client, the fee may be reduced by an amount not exceeding 3 per cent on the cost of each House Type or Flat Block Type thus repeated. In the case of flats, where there are variations in the floor plan(s) of a Flat Block Type, which do not make necessary a completely new set of type drawings but which can be met by drawings showing variations on the type drawings already prepared, the fee may be reduced by an amount not exceeding 2 per cent on the cost of each Flat Block Type.

For the purpose of calculating the cost of the work upon which a reduction of the fee in respect of repetition is permissible, the cost of the House Type or Flat Block Type shall be taken as the cost of all work shown upon the type drawings. In this calculation work below ground floor concrete slabs or timber joists shall be excluded.

The following definitions apply:

A Scheme refers to a group of dwellings on one site and the subject of one building contract. Separate building contracts on one site, groups of dwellings on several sites which are the subject of one building contract, separate contracts let on separate sites, or an extension of a building contract, are to be regarded as separate and distinct schemes.

Type Drawings refer to the drawings of a House Type or Flat Block Type which can be re-used without modification. Minor changes of design such as a variation of an entrance detail or the 'handing' of a plan do not constitute modifications.

- A House Type refers to an individual house which may be detached, semi-detached or part of a terrace or group, and may be of one storey or more in height.
- A Flat Block Type refers to a complete block of flats and/or maisonettes and not to the individual units of accommodation therein.
- 3. When Consultants are employed, the reductions in the Architect's fee contemplated in Condition H of the RIBA Conditions of Engagement shall not apply.
- 4. In accordance with Condition G of the RIBA Conditions of Engagement, the Architect's fee under this Application of the

RIBA Scale of Professional Charges does not include for Quantity Surveying services. The fees for Quantity Surveyors' services in connection with various forms of housing work are governed by the appropriate Scale of Charges promulgated for the particular purpose from time to time by the Royal Institution of Chartered Surveyors.

## **Explanatory Notes**

#### Note 1

The RIBA Scales of Fees for State-Aided Housing Schemes and for State-Aided Multi-Storey Flats have been withdrawn by the RIBA Council. Architects should in all cases charge fees on the basis of the RIBA Scale of Professional Charges. Nevertheless, to meet the particular circumstances of repetitive housing work, the Council have approved an Application of that Scale which for the sake of brevity is referred to in these Notes as 'the Application'. The basic principle underlying the Application is that when an Architect is required to prepare drawings for a new design such services will attract the normal scale fee, but when drawings can be re-used, a reduction may be made in that fee.

#### Note 2

The Application draws no distinction between blocks of flats comprising up to two storeys and larger blocks. The distinction which existed under the previous arrangements no longer applies.

#### Note 3

The Application covers all work in respect of repetitive housing schemes, except work for private house builders for which services the terms of the arrangements sanctioned by the RIBA Council in 1959 for work in connection with private housing development continue to apply. The latter arrangements differ from the Application in that the fee is based on the selling price of the houses to the public and not on the cost of the executed works. The selling price in those cases includes not only the builder's own profit but also the cost of the land which is being sold by the builder with each house. Where, however, architectural services are provided for developers other than building contractors, and the actual building cost is known, the terms of the Application shall apply instead of Clause D(b) of the 1959 arrangements.

#### Note 4

In the absence of anything to the contrary expressed in the Application, the normal RIBA Conditions of Engagement and Scale of Professional Charges will apply. (Application Clause 1.)

#### Note 5

(a) Clause 2(i) of the RIBA Scale of Professional Charges permits a reduction of the Architect's fee if he is carrying out extensive works of a repetitive character. This reduction of up to one-sixth of the fee is permissive only and not mandatory and must always be the subject of prior written agreement between Architect and Client. The RIBA Council have decided that for repetitive housing schemes, the Architect's fee may be

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reduced by prior written agreement by an amount not exceeding 3 per cent on the cost of the work included in the type design where there is a re-use of such design within any scheme. (Application Clause 2.)

(b) In determining the fee under the Application, the total cost of the works included in the scheme should first be taken and the full percentage fee calculated thereon in accordance with the provisions of Clause 1 of the RIBA Scale of Professional Charges. The percentage reduction agreed under Clause 3 of the Application, calculated on the cost of the repeated house types or flat block types, should then be assessed and the sum so arrived at deducted from the sum first calculated.

(c) In calculating the cost of a House Type or Flat Block Type screen walls, outbuildings and garages will only be included if shown on the type drawings.

(d) The permissive reduction of up to 2 per cent on the cost of Flat Block Types repeated with modifications is intended to cover such variations as different uses of the ground or top floors of multi-storey blocks or the extension of flat blocks horizontally by one or more units of dwellings without substantial elevational change.

Examples of how this would work out appear in Note 11 below.

#### Note 6. Consultants

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In view of the reductions permitted above, and to bring the Application into line with practice in other professions, there shall be no further reduction of the Architect's fee when the services of Consultants are retained in connection with a scheme or part of a scheme. (Application Clause 3.)

#### Note 7. Layout and Roads and Sewers

It is not good practice to separate the layout of a scheme from the design of the dwellings comprised therein as the two elements should be integrated. The fee due under the Application, which is chargeable on the total cost of the works in any scheme, covers work involved in preparing the layout as applies in the case of groups of buildings other than dwellings.

Nevertheless, there may be occasions when the architect is required to provide architectural services in connection with the layout of a scheme and of the roads, and to which services it is desirable to apportion some part of the ultimate fee. In such cases the fees shall be assessed as follows:

(a) Where the Architect is not employed to prepare constructional drawings of the roads and sewers, but only to prepare a layout of the roads and public paths to a scale of 1/500th, the fee shall be 1 per cent on the cost of such roads and public paths.

(b) Where the Architect is employed to prepare a layout but not to design the dwellings (or is employed to prepare a layout for a greater area than that which is to be developed immediately), and the layout shows the siting of the dwellings and other works comprised in a scheme, a fee of ‡ per cent on the estimated cost of those dwellings and other works shall be charged, which fee shall be additional to the fee specified in sub-paragraph (a) of this note.

The fees specified in sub-paragraphs (a) and (b) above shall not be regarded as additional to the Architect's ultimate fee calculated in accordance with the Application, but shall merge with and form part of that fee as and when the scheme proceeds.

Where an Architect is employed to prepare *constructional* drawings of the roads and sewers comprised in a scheme, the cost of such works shall be included in the total cost of the works upon which the Architect's fees are calculated, and the Architect's fee for such work shall be assessed accordingly. (Application Clause 2.)

#### Note 8. Partial Services

Where Architects perform partial services only other than those mentioned in Note 7 above, fees will be calculated in accordance with the provisions of Clause 3 of the RIBA Scale of Professional Charges, the percentage due to the Architect at the various stages specified in that clause being based on the Architect's total percentage fee as calculated under the Application.

## Note 9. Time and Mode of Payment

Save as regards fees for those services mentioned in Note 7 above, and in respect of which it may be more convenient to seek payment on the completion of those services, Architects will be entitled to payment at the time and stages laid down in Clause 5 of the RIBA Scale of Professional Charges.

#### Note 10. Ancillary Buildings

The Application does not cover architectural services in connection with the design and execution of various other classes of building which are often included in urban housing developments as, for example, social centres, club buildings, clinics, nursery schools, churches, shopping centres, etc., fees for the design of which would be chargeable at the scale appropriate to buildings of that character, namely the normal RIBA Scale of Professional Charges.

## Note 11. Examples of the Operation of the Application (see Note 5)

Examples of how the Application would work in the case of houses are as follows, assuming the average cost of each house type after deducting work below ground floor slabs or timber joists to be £1,300 and the cost of external works and work below ground floor to be £200 per house, giving a total cost per house of £1,500:

#### Example 1

4 Houses (2 Types)	
Total cost of construction £6,000.	
RIBA Scale fee 7 per cent on £6,000	£420
3 per cent reduction for repetition for two repeated	
types—2 $\times$ 3 per cent $\times$ £1,300	£78
	-
	£342
	-
	Total cost of construction £6,000.  RIBA Scale fee 7 per cent on £6,000  3 per cent reduction for repetition for two repeated

#### Example 2

50 Houses (5 Types)	
Total cost of construction £75,000.  RIBA Scale fee 6 per cent on £75,000  3 per cent reduction for repetition for 45 repeated types—45 × 3 per cent × £1,300	£4,500
	£1,755
	£2,745

An example of how the Application might apply to flats is as follows:

#### Example 3

## 48 Flats in 4 Blocks

Three blocks of 12 identical above ground-floor level	(cost	of
superstructure £22,500 per block)		

One block of 12 differing from the others.	
Total cost of construction £133,000.	
RIBA Scale fee 6 per cent on £133,000	£7,980
3 per cent reduction for repetition on the cost of the	
superstructure of two reneated flat block types	

3 per cent on $2 \times$	nat block	types	£1,350

## The history of the immediate future

By Reyner Banham, PHD Given at the RIBA on 7 February, Sir Hugh Casson, Vice-President, in the Chair

It is only four years and a month since I last delivered a sessional paper to this Institute - and since I now follow only five weeks after a sessional paper by my mentor, Professor Pevsner, I take this as a compliment to the profession of historian that - I hope - we deserve. Just why we historians should be so much in favour in Portland Place, I can only guess, but I have embodied that guess in the title of tonight's

paper. History is our only guide to the future.

But not because history repeats itself - it is, fortunately, impossible to make the same mistake twice (though that doesn't prevent anyone making progressively worse mistakes as time goes on). History is to the future as the observed results of an experiment are to the plotted graph. That is, you plot on the graph the results of which you are sure, you seek for a line, an algebraic curve, that connects them convincingly and you produce it beyond the last certain point to see where it will lead. So too with all major works of historical philosophy; they extrapolate present trends into the future condition of men. Of course, historians, like everyone else, can get their observations wrong, or - more likely - they can pick the wrong algebraic formula for their curve. The real world is rarely as tidy as mathematics, and often has a dirty trick held behind its back - it is only at the last minute, so to speak, that the observed results begin to suggest that aerodynamics will go wild just before the speed of sound: that the curve will suddenly develop characteristics which you could hardly have expected from earlier results.

History, too, has these points of transformation, when a quantitative change becomes a qualitative one, but history has one dirtier trick up its sleeve than this: it is about men. Unreliable men, silly men, manic-depressive men, wilful men, inspired men, men who collectively are unpredictably greater than the sum of their parts. At the moment when the observable actions of a sufficient quantity of men are about to lead them together into a new movement or a school, one silly clot, by his negligence or lack of vision, may spoil the whole thing. To take a classic example from our own architectural history - so certain were astute historical extrapolators in 1900 that the arts of design in Britain were about to take a sudden and spectacular upward swing that the Germans even had a man here - like a Russian tourist at Cape Canaveral - to watch it happening. No one at the time in his right mind could have anticipated that men like Voysey and Lethaby would so disastrously fail to realise what was going on, that the whole movement would be in ruins by 1905, plus or minus a couple of years. Yet, as we know, the long maturing of the English modern movement through Pugin and Henry Cole and Butterfield and Ruskin and Morris and Webb to Baillie Scott and Mackintosh - all that vanished in a puff of Edwardian affluence and Britain disappeared from the modern movement until Nikolaus Pevsner put her back 31 years later.

It is quite obvious, I expect, what all this is leading up to, but I am not really trying to hedge my bets and cover myself against the occupational risks of prophecy. It will be up to any member of the audience here tonight to make nonsense of any detailed predictions I may care to make, though I have a feeling you will think that my main and final prediction will be, in a manner of speaking, of the Do-you-still-beatyour-wife class, with an option on both heads and tails. Nevertheless, I intend to use an extrapolative approach, rather than tea-leaves or palmistry, and it is as well to know the limitations of the method.

Now to indicate the kind of evidence from which I intend to

extrapolate, let me draw your attention to what Charles Eames would call 'a circumstance'. Paul Valery's Socratic dialogue Eupalinos ou l'architecte has many curious features, but the one that particularly intrigues me is that the two types of designer whom Valéry contrasts in that paper of 1925 are an architect and a shipwright. The reason for this choice of opponent for the architect was given me by Professor Stuart as Valèry's boyhood knowledge of a shipping community, and his desire to personify a Functionalist. It has been suggested that he might have had Le Corbusier in mind when he invented Tridon. This is as may be, but turn the proposition the other way about, and ask - who, in antique society could be set up as an opponent to the architect. The answer is: on land, nobody. If Vitruvius is a reliable witness, the antique architect founded his art on all the land-based sciences and techniques, including medicine and astronomy. To find a radical critic of architecture, you had to get off the land - and there may be some sense in this proposition because Choisy, in his Histoire, seems to imply a radical difference between Greek carpentry in buildings and the use of wood in Greek ships, The circumstance, then, is that while, and where, building was the master-technology, architecture was the mistress art.

And conversely: now that building is no longer the master technology, you no longer have to leave the land to find a radical critic of architecture. Any electronicist or political economist can give you a succinct run-down on the sins and follies of architects - and 50 per cent of what he says will be right, so painfully right that his views will be instantly dismissed as ignorant lay prejudice. What I am saying, really, is what Professor Wind has been saying in last year's Reith Lectures - whether or not his observations were tactically timely, the truth of his basic proposition is observable: that art is no longer central to our existence (if it ever was) and has been pushed over to the margins by science and technology. So, architecture is no longer central to the business of building but has become a marginal or luxury activity in this field. To my mind, nothing better illustrates this state of affairs than the present condition of architectural theory, which has now become what some linguistic philosophers would call a vacuous category - that is, everyone agrees that it exists, but no one can show that it contains anything. It is notorious, I believe, that the RIBA text-book committee has long wanted an up-to-date book on architectural theory, but that everyone who has undertaken to write it has had to give up because it is un-writable. This is normally taken to be so because the subject has become so vast and complicated, but this I believe to be nonsense. The situation appears to me to be quite the other way about - architecture, as the process of creating buildings that are works of art, has become empty for some reason, the actual business of design has ceased to be a worthwhile or interesting occupation for the mind.

This is not to say that the business of getting buildings put up is not still one of the most fascinating and rewarding occupations a man could undertake - simply that the part, now a very small part, of that business that would be covered by the theory of architecture, the art of architecture, is no longer a major mental discipline. It only acquires a degree of intellectual standing, emotional conviction, when it is geared

to something else.

Examples to support this proposition are not difficult to find, negative and positive. The attempt to design by the light of a pure theory of architecture has been seen at a number of phases in the development of the art in this century, and has resulted in much of the most vacuous architecture we have. Instances are the Frenchified epoch that followed the collapse

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of pioneer modern architecture in England – you have only to look at the empty expertise of the Central Hall, Westminster, or the Ritz to see what I mean. We have seen a similar phase of architecture about architecture in Italy since the war – dazzling expertise, brilliant enough to fool all the architects in the world for at least part of the time, but now already collapsing into tired sentimentality after a bare 13 or 14 years. And I am pretty sure we are witnessing a similar development in the USA, even in Grosvenor Square, at present. Of course this isn't the only trend in that trendrich country, but it has been given undue prominence over here by the decision of an apparently responsible body to invite one of its most trivial performers to come and lecture here – and call him a genius to his face.

We have no right to be taken in by this sort of thing, because we have a tradition of suspecting it. Quite recently one of my editors wrote across the top of a manuscript whose author and subject I will not reveal: 'The appeal to architecture as such is a sign of a feeble mind – and is this mind feeble!' I doubt if he knew it, but he was echoing the sentiments of one of his remote predecessors in office who wrote – this time in print – some 55 years previously: 'The grave sawns for architects' architecture.' But why stop at the grave – we all yawn at architects' architecture, in that sense,

the moment the novelty has worn off.

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Against these demonstrations of the vacuity of architectureas-such or architecture for architecture's sake, one may set any number of positive manifestations of architecture gaining strength, or conviction, from its non-architectural content. The examples I propose to advance and discuss in detail are, for the most part, the observed results from which I propose to extrapolate my main argument - they don't rule out, of course, the possibility that a rush of fly-by-night affluence may so corrupt both clients and architects that architecture might lose its way again as surely as it did in the Ritz period before the 1914 war, or what Furneaux Jordan has called the Playboy period after it - I might add here that the intellectual leadership, in the sense of the blind leading the blind, in both the Ritz and Playboy phases of English architecture was provided by that literary epitome of architects' architecture, Geoffrey Scott's book The Architecture of Humanism, which with empty expertise furiously repudiated all those doctrines or theories that had given strength and purpose to the architecture of the 19th century, and prided itself on the architectural purity of its basic premises.

Now to my positive examples. I'll save the obvious one, that has already occurred to every serious-minded sort of chap in the audience, till the last, and start with the less obvious ones. First, the good recent buildings in Milan: simply because one so despairs of Italian architecture at the moment. There can be little doubt that the two Milanese buildings that impressed last year's visitors to the Triennale were the Pirelli tower and the Istituto Marchiondi at Baggio. Both of these have been casually damned, on the strength of photographs only, as formalist, and both do, indeed, have a quality of formal bloody-mindedness about their design, but in neither case is this of real importance when you are confronted with the building itself (unlike the Torre Velasca, for instance, where the formal bit is obtrusive every time you look at it). In both cases an overriding non-architectural consideration made pure formalism or architects' archilecture impossible. Pirelli is not just a work of architecture, it is also - perhaps primarily - a big pitch in an advertising campaign. You may disapprove of advertising, you may disapprove of Gio Ponti for being 'commercial' - unlike all you, of course, who never did anything for money in your lives - but the plainly visual fact remains that Pirelli is good architecture in almost exactly the ratio that it is good or effective advertising.

Baggio, of course, is a different matter. The Istituto Marchiondi is one of the two or three buildings put up in

The amount of skill per square inch of stone is sensational: the amount of whitecture per cubic foot of building is negligible.

Italy in the last 15 years in which the architect has been able to work for society, not a gaggle of politicians masquerading as the will of the people. The occasion for the building was a move from a congested urban site to a less frantic one on the edge of the country, and at the same time a complete overhaul of the psychiatric programme by which the institute's inmates – psychologically disturbed boys and youths – are directed back to a responsible attitude to society. Tough job, tough building – a tough building in which the architect has been able to contribute to the programme of the building, before design began (a situation that seems to be less and less common in Italy) and to propose improvements in the lives of its inhabitants.

The result has sent a lot of architecture people for a spin. Thomas Creighton, of Progressive Architecture, appears to have been horrified by it, Professor Pevsner seems to think it is de Stijl revival, Bruno Zevi called it New Brutalist. J. M. Richards, common sense personified, thought it was one of the best buildings he saw around Milan. So would anybody who had actually visited it and been inside it. The non-architectural content has made architecture of it, and of all the stylistic critics, Zevi came nearest when he called it

New Brutalist.

I know what Zevi meant, and I think he was wrong, but he was right in making the Brutalist comparison. Let me brood for a moment on where we have got to with the New Brutalism, because it is of the class of evidence from which I wish to extrapolate, as well as something to do with Baggio. I remember that after or somewhere around the discussion on Brutalism at the ICA some time ago now, an engineer who shall be nameless, said 'It's all Greek to me, I thought it was simply a matter of judging each case on its merits.' This, of course, represents pretty well the low opinion that engineers have of architects - that you have to have a revolutionary movement in order to get an architect to do the least that can be expected of him - to judge every case on its merits. But if that was all there was to the New Brutalism, then we would simply be back to the vacuousness of current architectural theory, architecture about architecture.

In order to judge a case at all, you have to have standards, something to judge it with. If Brutalists reached different and more radical judgements than other architects, it was not because of the cases with which they have been asked to judge, but because the standards they have taken in passing judgement are different and, doubtless, more radical. And those standards have to come from outside architecture, and what drives people mad about the Smithson's is that the standards are apt to be different from one building to the next. But each of their radical solutions – Hunstanton School, the House of the Future, the Wayland Young studio-block and, doubtless, the Economist Building – each of these has brought to the merits of the case outside standards of

judgement.

Now, the issue I want to make at this point is that among the fistful of often contradictory standards that the Smithsons – and some of their peers and equals – have brought to bear, some are aesthetic. The effect of some of these aesthetics is not always obvious – though Jackson Pollock's paintings clearly have affinity to their anti-formal plans, and the art brut of Paolozzi or Dubuffet has an equal family relationship to their interest in the visible and tangible material qualities of their building-structures. But some of these aesthetics are of architectural-historical extraction. Accusations of modernmovement historicism can be made to lie very close to the Brutalists – at least in some of their works and particularly in the early and middle '50s.

I don't intend to defend this action of theirs – which is only another kind of architects' architecture – because if they had persisted in it they would simply have wound up doing something like Italian neo-liberty. But it was understandable at the time, when aesthetic guidance was hard to get in England and historical guidance was a fair substitute. In this, the school at Baggio is very Brutalist-like, except that



The Marchiondi Spagliardi College, Milan Architect: Vittoriano Viganó

Other views of the College on facing page and 269

Photos: Camera Color, Milan

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Professor Viganó w of Terrag in every which the Terragni's But th historicist trend, of countries first half were wea had been offered W movemen tramped millions accepted design its mental d indeed, in far more sinking to precedent the Witt enough in Now, the stron architectu '50s, imi turned t again hav neo-Futu been a p one, bec bothered reinforce to judge does is t read out Shillings out engi not aske will rem Margeri Howe adjacent can be architec hospital national instance tended pretext, But who have ac face it, Britain. one see: and ess haggle architec heroic that Hu planned know v of a cer is comp

Professor Pevsner picked the wrong historical source. Where Viganó went for guidance – and admits it – was to the work of Terragni before the war, and this comes out very strongly in every detail of the building; particularly in the colour in which the window frames are painted, which is unmistakably Terragni's revolting green.

But there is something more to be said about neohistoricism, something which sheds light on the nature, and trend, of my argument tonight. Its greatest influence in countries where there are real competing influences was in the first half of the 1950s. Not because the competing influences were weak, but because history was strong. A generation had been nourished on Pevsner and Giedion, now they were offered Wittkower and the delights of do-it-yourself modernmovement history - my God, the kilometres we must have tramped around the suburbs of Paris and Amsterdam, the millions of francs the concierges and caretakers must have accepted in bribes to let us in! Outside of the business of design itself, history was the most turbulently active of the mental disciplines immediately adjacent to architecture indeed, in many places, such as the Liverpool school, it was far more active than the teaching which was then rapidly sinking to the level of the exercise of choice among historical precedents - modern historical precedents, in theory, though the Wittkowerian Renaissance bit showed through clearly enough in places.

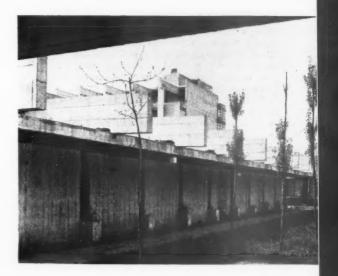
Now, my contention is that trends in architecture follow the strongest available influence that can fill the vacuum of architectural theory. History filled that gap in the early '50s, imitating Corb took over for some after that, others turned to Detroit styling and appliance affluence, others again have gone to science fiction, or to its historicist shadow, neo-Futurism, and at all times, of course, engineering has been a potent source of vacuum-fillers. But not a satisfactory one, because engineers, of the sort that architects can be bothered to listen to, are not sufficiently radical critics to reinforce the architect's judgement. If the architect is required to judge each case on its merits all the engineer commonly does is to look in the book, like the clerk of the court, and read out the sentence after judgement has been passed - Fifty Shillings and Costs, Ten-Inch RSJ's and no option. The far out engineer, who might make a really radical criticism, is not asked for his opinion, however relevant it might be - you will remember the empty seats here last year when Tom Margerison spoke on space travel.

However, to return to the proposition in hand: the strongest adjacent discipline. Better still, the strongest discipline that can be wrapped up inside, or together with, the process of architectural design. I need hardly instance the Nuffield Trust hospitals programme, or the schools programme, viewed nationally and by whomsoever carried out. I need hardly instance them as instances - since the Triennale they have tended to spring unbidden to English lips at the slightest pretext, and we all know we are supposed to admire them. But what are we supposed to admire? For long periods, we have admired them out of sheer loyalty to the cause, let's face it, or because there was precious little else to admire in Britain. And yet, when one looks back over these programmes, one sees that what makes them admirable now, their intrinsic and essential qualities, were there all the time. One may haggle that the Smithson's school at Hunstanton is better architecture than an average Herts finger-plan effort of the heroic Aslin period, or Henry Swain may counter-haggle that Hunstanton is formalist compared with an equally axially planned Notts-Clasp frame-up, and a number of people I know went out to be quietly sick when they saw the exteriors of a certain little hospital in the Channel Islands. But all this is completely marginal to what is really at stake, what binds them together as a movement, a significant movement in the sphere of world architecture.

The heart theme of the whole enterprise is a special care for the users of the buildings. That care may take a variety of forms - believing that exposed concrete is good for you









spiritually, or that six air-changes per hour are good for you physically, but these propositions are not made on the basis of 'this is what the architect wants as a creative artist', or that 'this is what the bye-laws' require'. In every case the architects have involved themselves imaginatively in the life and outlook of the occupiers. (I have a quotation clipped to my notes: Denys Lasdun says that to produce architecture we must 'lock ourselves mentally' with the client in order to assimilate and appreciate his dreams as well as ours.) They may not always have drawn the right conclusions, they may not always have backed their imaginative hunches with research-results as they commanded. But they still put themselves in a special kind of relationship to their ultimate clients.

You may argue that this again is the least one can expect from an architect, and I for one would certainly wish that it were so. But this is not just a matter of doing the least that can be expected, or satisfying minimum standards. An office worker, for instance, or the patron of a theatre, is safeguarded only by model building regulations and the integrity of the architect - even if the office block is by Cecil Elsom or the theatre is in Coventry. But in the case of school children or hospital patients, public opinion demands something more, and gets it. These are classes of building occupiers who enjoy more than bye-law protection - I believe that it is psychologically impossible to design, in Britain, a school as bad as some of the Italian horrors that have been illustrated recently in Casabella. It may be objected that the Italians are even more fond of children than we are, and do more, personally and physically, for the sick than we do. Granted, but, as the song says, 'It aint what you do'.

If I may trespass for a moment on the private territory of Professor Pevsner, that of national characteristics, I should say that we are more organised and less sentimental in our regard for the sick and the young than the Italians are. Our periodical attacks of sentimentality have been architecturally disastrous - I have in mind, particularly the so-called New Humanism of the early '50s, and the endless guff we used to hear in those days about the need for a human scale, etc. etc. That is a movement that I don't need to extrapolate about because it has died already. What survives, what is the real bone and guts of the other kind of humanism is its lack of sentimentality, its preference for working with the facts. If it is psychologically impossible to build a really bad school in Britain, it is because something bigger than the architectural profession's integrity operates - public opinion insists on certain positive objective factors, which is very different from the law enforcing certain minima.

We expect to see concrete evidence that the architect has worked his brains to the bone to create a satisfactory, a lifeenhancing environment in the school or hospital. Naturally, architects are as unwilling as anyone else to work harder than they need, and so those engaged in this field have made more use of research than others have done, and public opinion, whether consecrated in government money or private benefaction has seen that the research gets done and paid for. Here, the vacuum of architectural theory has been forcibly filled by pressure from outside, but it has also been filled by something that the architect has no difficulty in assimilating - information on how to design buildings. Those who, in the early '50s tried, for polemical reasons - and that includes me - to make a war between New Humanism on the one side and technology on the other, must all of us feel humbled now by the manner in which the human sciences, and the frame of mind that enjoins their employment in architecture, have made fools of us.

I think it is quite clear that the human sciences are here to stay in architecture – indeed, it is already becoming difficult to think how the profession ever got along without them. They have arrived in the schools, in the double sense that they are part of the curriculum in all schools with any pretensions to being progressive, even if they have not yet been given the key position that they occupy in the new curriculum

of the Bartlett school, and they have also arrived with the student body, though here in a rather different and - to my mind – narrow minded sense. That is, some sections of articulate student opinion seem to be setting up one of the human sciences - perception studies - as a substitute for aesthetics This won't do - perception studies may provide a radical critique of aesthetic trends, or the basis of a more rational aesthetic doctrine, probably so rational and so radical that we shan't recognise it as aesthetic at all. But to try and put in such studies instead of aesthetics is simply out of the Polytechnic frying pan into the neo-academic fire. As a writer in the particular issue of the Polytechnic magazine Polygon, which inspired these thoughts. observed, the student may have to make 'an act of faith . . . that some segment of study which initially appears irrelevant' will later appear to be vital to his training.

He will, indeed, unless perception studies are maintained in their real and relevant position as one, but only one, of the whole gamut of human sciences. There is a reason for this, a reason that accounts for the present authority that the human sciences enjoy, and thus leads towards my last point of extrapolation, which is also, I believe, a point of transformation, a point where the graph goes crazy.

Perception studies are only one branch of the group of environmental studies - and not just the physical environment, but the social too: Mervyn Perrine who runs the perception lab at Ulm said to me: 'I want to know how a woman sees an object she believes is going to grow up into the President of the United States.' But perception studies are also part of a group of studies that consider how the human being works inside, they are subject to studies of stimulus and involuntary response, of patterns of neural and cerebral activity - how else do you suppose it was discovered that there is a correct speed for car direction indicators to wink at They are, in short, part of the body of studies that deals with the balance of organism and environment, of respiration, and comfort levels and acoustics and all those. If you don't buy the rest of the package when you buy perception studies, you stand a fair chance of getting diddled over what you do buy.

But there is something else here. Taking a longer per spective than the last decade or so, one can see a general pattern in the developing relationship between architecture and human studies, proceeding from the most broad and abstract towards the most personal and particular. A sense of sociology is one of the modern architect's oldest attributes: more recently he has come to use detailed sociological studies of smaller and smaller groups - town, neighbourhood, street school, the class within the school, the family. With perception studies, we are down to the skin of the individual as we are with studies of comfort levels and acoustics within rooms. The next move for architecture is to follow the human sciences inside the human being. But there is a more com pelling reason than the logical pursuit of this process. The reason why the various human sciences are becoming s persuasive is that Human Science - capital H, capital Snot only the strongest discipline adjacent to architecture, i is also becoming the most powerful discipline there is What I am going to call The New Biology, because no one seems to have thought of a name that suits it better, looks likely to overhaul Physics in the near future and replace i as the master-technology of the mind. Were it not that history does not repeat itself, it would be tempting to compare the present state of biology, in its broad sense, with the state of physics in the Rutherford epoch - sensational develop ments just around the corner, plenty of scope for speculative thinking to produce results, but still in the condition where even the most shattering conclusions can be backed up by common-language explanations. What is more - here in

The average thinking man cannot help but be somewhat aware of what is going on in these fields, because Nobel prizes are news, and the prize-winners' names get even into the Pop papers, and last year's winners of the Nobel for medicine

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were two of the main ornaments of this Anglo-Saxon enterprise, Professor Medawar and Sir Macfarlane Burnet. Now neither of these men is the sort of back-room boffin who can't stand exposure to unfiltered sunlight. Professor Medawar is an all round, knock-about intellect who writes murderous reviews of inflationary books about the phenomenon of Teilhard de Chardin, and who two years ago gave the BBC's Reith lectures on a highly extrapolative subject, The Future of Man. It is typical of his power of common-language exposition that he once laid down the perfect description of extrapolating till the graph goes crazy. In a splendidly irreverent centre-page article in the Times Science Review, many years ago, discussing the mathematics of biological form, he observed of the relation between the linear measurements of an animal, and the amount of structure required to support increasing weight, 'It would be possible to extrapolate an infinite series of elephants but before long it would be impossible to see daylight between their legs'.

The work for which he and Sir Macfarlane Burnet received their Nobel, was concerned with the immunological reaction—an extreme and vital disturbance of organism/environment—and involved, among other things, the theory of Clonal Selection, which does not concern us here and I have only put it in to annoy our chairman who hates new words, like cybernetic. But when Sir M. B. was interviewed on the radio about the theory of clones, which is his special contribution to immunological studies, he produced one story that, to my mind, reveals most perfectly the mixture of insight, statistical research, biological know-how and blunt common sense, that characterised also Professor Medawar's Reith Lectures, and ought—I submit—to characterise architectural thinking as well.

The story, I suspect, is already a classic in its field, to judge from the way Sir Macfarlane's interviewer manœuvred him towards it. The subject under review was somatic mutation: that is, alteration of cell structure after the organism has started growing. The example around which the story hinges is the mosaic-ing of sheep's wool - Sir Macfarlane is an Australian, and the problem of irregularities, bad patches, in the fleece was on his doorstep, so to speak. So much on the doorstep that it was possible to have a census taken of the amount of mosaic irregularities in a simply enormous number of sheep. From this it emerged that there was one sheep in the whole of Australia that had approximately one half its fleece bad wool, a handful with about one quarter bad, a slightly large number with one eighth, rather more with one sixteenth and so on. From which it was deduced and this is the payoff - that the unique half-bad sheep underwent a somatic mutation when its embryo was still in the twocell stage, the quarter-bads after the next cell division, suffering the derangement of one cell out of the four, the one-eighthers after the next cell-division and so on.

It doesn't require a Nobel class mind to understand this, even if you have to be called Macfarlane Burnet to think of it. It is a prime example of common-language explanation of what is primarily a very hot subject. But there has been no comparably valuable piece of thinking in physics in recent years in which the lay mind can actually participate as in this - what's new in physics is a spray of even more numerous fundamental particles, most of which sound incredible and many of which may prove to be imaginary. The feeling that biology is currently in the sort of condition that physics was around the time of  $E = mc^2$  is reinforced by the fact that genetics may have just passed a similarly crucial point in the enunciation of a reasonably convincing account of the chemical structure of chromosomes - that is, the theoretical basis has been laid for the direct manipulation of hereditary character. Just as  $E=mc^2$  is the theoretical beginning of atomic physics, so the proposition of a convincing structure for a molecule capable of imposing its will - I relapse into anthropomorphic metaphor on purpose - on its environment is the theoretical beginning for - probably - both the creation of life and the changing of human nature. By comparison with this, atomic physics is U certificate stuff, and the Einstein of this operation is, as far as one can make out, N. W. Pirie of the Rothamsted research station.

The three men I have mentioned do not by any means exhaust the register of British contributions in the New Biology, some of which are being made next door to one of our architecture schools and just up Gower Street from another. All I need do here and now is to point out that it is going on, and that it is far and away the most lively and most powerful discipline adjacent to architecture, and this is a very likely point for the graph to show some marked change in development.

In fact, I had overshot my last certain observations some paragraphs back and have been extrapolating already. The curve I have chosen to connect my observations takes a sharp up-beat trend at this point. But I could be wrong. My prognostication for the immediate future takes an either/or form. Either British and world architects will join the intellectual adventure of Human Science and transform architecture, or it will fail to make the imaginative leap, and turn introspective again.

Unfortunately, I can see two reasons why the latter might happen. One is the possibility of aesthetic failure – the Human Sciences will not become architecture unless a means can be found to express them as surely as the forms of the International Style expressed the mechanistic inspiration of its Masters in the 1920s. The success of the Notts/Clasp school at the Triennale suggests that it might come quietly and of its own accord, but in general a Fuller dome carries the message with far greater force. The motive power will have to come from outside architecture, but the formal convictions and the creative sweat will have to come from inside.

The other reason lies with the men involved. What killed the English Free Architecture of the beginning of the century was the sincere, responsible, deeply felt and long pondered attitude of its masters and exponents. The resulting atmosphere of conscientious humility, moral superiority and general lack of interest in the outside world exuded by the worst of Lethaby's writings or by the Architectural Review in its early, Lethaby-dominated phase before 1906, is suffocating; the failure to realise what was at stake outside his own private dream of a reformed cottage architecture revealed in the opinions of Voysey is quite daunting. No wonder the generation glorified in the writings of Goodhart Rendel turned elsewhere for inspiration. Similarly, the outburst of formalism in the generation of students who qualified in the early '50s was almost certainly due in large measure to the assumption of their seniors that the virtues of functionalism were so obvious that they didn't particularly need to teach them, that a teacher's main qualification was soundness, not pedagogic capacity. In other words, the threat to any upswing of architecture based on the human sciences could come from, say, the Building Research Station quite as much as from irresponsible aesthetes. No body of knowledge can inspire anybody to do anything if its own guardians should lose their dynamic. But here, I think, one can see some grounds for optimism. The dynamic of biology looks like being so immense in the foreseeable future that if any one organisation, BRS or whatever, should relapse into a state of smug know-it-all satisfaction, it will just get pushed aside by the pressure of information and speculation. The other reason I have for a degree of confidence in the outcome is that the trend towards the Human Sciences puts modern architecture back on what appears, historically-speaking, to be its true path. At the end of the first great period of adventure in the modern movement, in 1929, Moholy-Nagy, in summing up the position to date, spoke of 'The biological as the guide in everything', and enunciated a slogan that would serve architecture well as a motto at any time 'Man, not the product, is the end in view'. If architects could hold fast to that precept for a decade or so, and not get side-tracked by purely technical and purely professional preoccupations, the history of the immediate future could make exciting reading.

#### **VOTE OF THANKS**

The Vice-President: I will now call upon Mr Donald Gibson, our Honorary Secretary, to move a vote of thanks to Dr Banham.

Mr Donald Gibson: History was never one of my strong points. When I was invited to do this task this evening, I wondered whether I would be able to rise to the occasion; but I did have the advantage of having a copy of this paper last night, and I managed, with my wife, to look one or two difficult words up in the dictionary and we more or less got the gist of it. It seemed to me that Dr Banham really was saying that, if you go backwards in history, and plot a curve of architectural trends, if you are very clever, and, by using that curve you may hope if you stick it forward a bit, to land up with a forecast of the future. But our speaker this evening has said that he can only get to the point at which it might go on one way or another; so we all have a fifty-fifty chance to play our own part and affect the future.

If I may go back to the business of whether the predicted curve means heaven or hell in the future. I did, struggling through the paper, discover that I had some little part with Henry Swain and one or two others in the context of what has been said. I would therefore like to put it to you that some of the things that some of us stand for today are likely to push our profession in this country on the upgrade, but there are plenty of active forces on the

opposite side.

As I see it, there are two forces, one bad and one good, and I will take the bad one first. I will start off with the universities and schools of architecture. Occasionally on the Visiting Board. I went to see what some of them were doing. It seems to me that our future is often preformed by the schools. The requirements for buildings to fit their purpose, specially from the user point of view, must be very difficult to appreciate by students who never meet a client. It is all too easy for them to escape to 'fashion' copying and to believe this is architecture. Fortunately there are several hopeful signs of fresh approaches to the teaching of architecture in several of the schools, but this cannot come quickly enough.

On the other side, what I see as the thing that might lead us forward is the fact that, in this country at any rate, about half our investment in buildings is coming from either the tax-payer or the ratepayer. It is therefore being handled by organisations, either government or local government. Going backwards a few years, people like Johnson-Marshall and his staff at the Ministry of Education 'blazed the trail' and one now finds development groups being set up at the Ministry of Health, Ministry of Housing, Ministry of Works, the War Office, the University Grants Committee, and 'study groups' in some of the other departments of central and local government. This is bound to have a great effect. In these development groups one has to go through all the disciplines of really living the life of the person in every sort of building that is going to be built and then building something better than has ever been done before, making each building a better one than the last – in other words, development.



Publifoto, Milan

The Pirelli Building, Milan Studio Arch. Gio Ponti, Ing. Antonio Fornaroli, Arch. Alberto Rosselli Studio Ing. Giuseppe Valtolina, Ing. Egidio Dell'Orto Consultants for the structure: Ing. Pier Luigi Nervi – Roma Prof. Arturo Danusso – Milano

I wondered whether the wires of Reyner Banham had got a bit crossed because I know that, in Nottingham, we did not see eye to eye on the whole Smithson philosophy.

I believe a building is a whole thing; you should not spend a lot of money on plate glass and special shaped corners to your windows and have none left for decent doors and floor finishes. The problem of good architecture is by proper cost planning to produce the best possible building for whatever the client can afford.

As I see our problem, this curve is going to go up, and we are going to get better and better architecture, but not because of an odd museum which might be a 'one-off', but by a whole programme of work which a growing population can afford to have. I may be quite wrong; I would like to know

if I am. This is how I understood what this paper was about.

I would like to end by saying how much we have enjoyed listening to this paper. If you have ever tried to write a paper to present to this Institute, you will realise that it is not just one evening's work, it is a lot of evenings of very hard work that have gone into this paper, and we owe Dr Banham a debt for what he has done.

The Vice-President: I will now call on Mr J. C. Pritchard of The Furniture Development Council, to second the vote of thanks.

Mr J. C. Pritchard: I was very glad when Dr Reyner Banham sent me the paper beforehand. I too, when I first read it, did not understand a word of it, but I read it

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again, and I began understanding a little bit. Then I took the best possible advice by asking an architect of the next generation, and he told me what it was about.

Now, having heard Dr Banham, I think I know what he is getting at, and if I understand aright he is making an important contribution; therefore, it gives me pleasure to be here seconding this vote of thanks.

If I understand him correctly, he is trying to draw a curve on a piece of paper (and I only wish he had shown it on the screen) and to project it forward. He seems to believe that the architecture of the future will take greater concern for human requirements. He approves of that discovery; I certainly do, especially as a customer of the architect.

There is one point on which I am not sure that I do quite agree with him, and I hope we will be able to provoke him; he does not need provoking very much, any-

I feel that he implies that the human scientist is going to be the person who fills the gap that he describes and becomes, perhaps, the dominating partner, more important than the architect. I do not think that that is going to happen. It is only recently that we have begun to understand in quantitative terms what are the requirements of the individual. In the 17th and 18th centuries, it was a pretty easy job for the architect and the client to get together and understand each other, but now he has to serve an anonymous public, and we have got to find other ways of getting to understand and measure and put into numbers what their requirements are. We must remember that Ruth and David Glass are comparatively recent inventions; the work they have done has only really just begun to have an effect. Knowledge about human requirements is increasing, but it is only a tool that the architect must use, and it is the architect himself who must surely solve the total problem.

Before the substantial intervention of the uman scientist, we had such quite ridiculous situations occurring as happened at a fantastic meeting I went to, ten years ago, in the early 1950s. At that time the London County Council had begun doing some very ne housing architecture and were really beginning to get going with straightforward nodern jobs; but, at that meeting, some oung architects who were there seemed to te advocating a lot of romantic nonsense bout what people wanted. They were just mply imagining what they thought people wanted, instead of making a careful study their real needs. This approach, I was d afterwards, was called 'socialist ism'. Within a very short time - a bit 00 short for them I think - this particular proach after very careful dialectical examination elsewhere, was found to be ther socialist nor realist! It is to be hoped hat the Glasses and the human scientists, e biologists, the ergonomists, the psychoerapists and all the rest of the people we and about from Dr Banham, will begin help the architect and provide him with information he needs. It is grand to see the London County Council are going just the same as they were before that ange meeting.

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I would like to ask Dr Banham two questions in the hope that he will answer them. One is about the Pirelli building.

When he went over it, did he not think that it was a good office building anyway, apart from the advertisement? I cannot help feeling, knowing some of the Pirelli boys, that they really did go out to build a good office block, and I think they have done it. When I saw it, it seemed to be a useful building, and the fact of having Gio Ponti to do the job got an unearned increment in the way of an advertisement.

The other question is: has Dr Banham ever seen a photograph of the *Daily Mail* House of the Future designed by R. A. Duncan in 1928?

It has given me very great pleasure to second this vote of thanks.

Mr Roger T. Walters [A]: Dr Banham has suggested that the human sciences are gathering momentum and that they should be our inspiration of the future. I would like to put three points to him. The first is this. While we are doing our best to use the human sciences will he not be standing-by looking pontifical (rather like a younger G. K. Chesterton) and, when we have done our best and the buildings are complete, will he not come along and pass judgement on them in aesthetic terms? Will he really try to find out what influence Professor Medawar, or David Medd, has had on our thinking? And will he really try to find out whether the people who use the buildings are deeply satisfied with them? Or will he judge them by appearance?

So my first plea is that both the critic and the historian should come along with us; that they should extend their crieria and possibly their language; and that they should accept that, in the future it is going to be more difficult, unless you happen to be the designer or the user of a building, to find out whether it is a really successful building or not.

The second point arises from Dr Banham's chiding a student at the Polytechnic for looking at perception studies only, instead of at the wider canvas of the human sciences. I would like to chide Dr Banham, gently, for falling into the same trap. I agree that the human sciences are already important in our thinking and will become more so. But they are only part of a bigger pattern of influences. There is, for example, the influence which a very large client, say a government department, has when it states its forward demand for buildings; there is the influence of industrialisation, to which a very depressed but far-sighted Sir John Summerson referred in this room a few weeks ago; there is the influence of the integration of organisation - the trend towards making the building team a more permanent thing. And it is a notable fact, as Donald Gibson has said, that, in the development groups, where human needs are taken very seriously indeed, equal interest is also taken in building technology and in building management, and in the effect on all these things of having a very large building programme.

In the development group at the War Office, I will not pretend that we sit up late reading about fruit flies. But we are interested in making the process of building more predictable; and in being more certain, when we design, of the effect that the enclosure we are designing will have on those who are enclosed by it; and we are interested in decision-making – what happens when you make a choice in design.

We are in touch with some of the people who are trying to study these things scientifically. We hope that they can help us and, as far as we can, we shall try to be useful to them. But we are also interested in the other influences I mentioned, and I suppose that our real inspiration is trying to make a synthesis out of all of them. So my second plea is to give the human sciences their proper place, but not to single them out as our only hope for the future.

My third point is about architects' architecture, or, if you like, the intuitive as opposed to the rational approach to design. I am not with Dr Banham in thinking of these two approaches as two sides of a penny. Although I personally believe in the rational approach. I do not want to deny the value of those who regard the building they are designing primarily as a means of personal expression, because their work is another influence and a very important one indeed. The intuitive exploration of aesthetics must go on, and though we may choose as individuals what sort of architects to be, as a profession we need both. I'm for co-existence.

So my last plea is that, for at least the next decade, we should forget about trying to be all the same. We should try to get used to the idea of having two kinds of architect and two kinds of architecture, perhaps more. I expect that Dr Banham will continue to arrange polemical prize fights for us and, in a way, I shall be sorry if he doesn't. But I hope the next time he announces that on his right is the intuitive architect and on his left the rational architect and may the best man win, he will have them carefully rehearsed and, as an essentially humane promoter, will see to it that neither of the contestants really gets hurt.

Professor Robert H. Matthew [F]: 1 have had the opportunity of teaching students in Edinburgh. One does recognise that there is no recognisable subject, although the Royal Institute of British Architects put it in as a compulsory subject, that could today be called the theory of architecture, and so we do rely very much on function. One of our constant worries in school is to get people to collaborate with us who will, in fact, tell us how people function under different circumstances.

In Edinburgh it so happens that we have a geneticist of worldwide renown, C. S. Waddington. His wife, whom I have known for many years, is an architect, and she is also, in her own sphere of hospitals, studying research into function. I have talked about this many times before and I would be very interested to know if she has, in fact, gained direct inspiration from the work of the geneticists.

I happen to have known Medawar for five years, working in the University Grants Committee and I have the greatest respect for his mental powers and capacity. I listened to his Reith Lectures and found them most difficult to understand; I found that he was not able to communicate on my level; that is not surprising because my level is not very high, but I think Dr Banham's point was that biologists today are able to communicate something to architects. The reason that I got on my feet was to ask him if he could pin-point that a little more precisely. In what way can they

communicate to us as teachers and practising architects in a way that would really mean something to our approach to the

design of buildings?

In our own housing research in Edinburgh University we use a number of those much maligned people, social scientists, and we find we can get something from them; but I have never, in my own experience, got anything from the biologists, and I would very much appreciate it if Dr Banham could give us a line on that. How can we do it? We are only too anxious to.

Mr T. Rock: I would like to add to the last speaker's comment. Dr Banham is so very anxious to attack architects' architecture, might I also say that I very strongly attack critics' criticism, and I feel that a plethora of words tonight has covered very few ideas. I hope that Dr Banham will give his earnest attention to this particular fact.

Mr Michael Brawne [A]: I thought that it might be worth while to look back at the last time the curve took a serious jump. One would probably be right in saying that it did so with the foundation of the Bauhaus in the middle '20s. It is now well known that at the Bauhaus the design emphasis was entirely on production, on the most rational way of producing an object. What Dr Banham has propounded is the opposite theory: that one does not think of production, but of use. It becomes obvious that when one thinks of use that the social scientists are going to be enormously helpful. The great advantage of the Bauhaus principle, however, is that with the idea of production one also had a visual idea. The disadvantage of this one, in terms of looking at the future, is that there is no clear cut image. If, for example, one thinks of Akerblom's anatomical studies for furniture design or Festinger's work on Social Pressures in Informal Groups at Westgate, or William Whyte's portrait studies of social contact in neighbourhoods, one finds that these provide merely the barest of tools and the barest of facts. One can still design 200 different chairs on the basis of anthropometric data just as one can design 200 different neighbourhoods on the basis of sociological studies.

I wonder, therefore, if Dr Banham has any visual, any stylistic notions of what this might bring, or, of course, whether one is wrong in ever thinking that such notions are likely to evolve? If they are not, is there to be a period where all sorts of answers, all sorts of radically different visual answers, will satisfy these particular criteria and yet

be equally acceptable?

Mr Peter Sugar [A]: Dr Banham said that some schools are really carrying out a certain amount of perception study and he also felt that students should pay greater attention to some of the things that are going on in other human sciences. Would he not agree that, if it is done properly, it might mean a lengthening of one's architectural education? If he agrees, would he not think that architects, when they have finished that education, would become even more academic than some laymen tend to think them?

Mr D. L. Medd [A]: Dr Banham's paper was rather like a burst of shrapnel. A lot of ammunition, but not all of it hit the

target and that which missed was the most harmful. Some of Dr Banham's references to schools were factually incorrect.

I think that he is absolutely right to lay emphasis on people, but the 'new biology' has not necessarily much relevance to architecture. Psychology might have more. I was very glad to hear that he did not talk about what architecture was going to look like. He did not fall into that trap, which so many historians do.

But how are we going to tackle the problem about designing buildings for the future? This is something which interests me because I feel that most modern architecture, even though it may look modern, is out of date before it reaches the ground and is probably out of date before it reaches the drawing-board. This is not because architects are not versed in the new biology, but because the clients only see their needs in terms of yesterday's or at best today's practices. If architects are to make a contribution to the architecture of the immediate future it will be necessary for them to associate with clients who can communicate the future of their own activities for which the building is being designed. I am glad that Dr Banham recognises that at last, in the school's programme, a building technique is emerging which is born of current trends, but may I suggest that the most valuable book he could write on behalf of the architecture of the immediate future would be 'How to be a good client'!

Mr A. Derbyshire [A]: I want to see if we can get a few more definite ideas from Dr Banham about the relationship between modern biology and modern architecture, because I suspect that he is holding out on us! I think that he does not mean to be taken literally; he does not want us to pay more attention to user requirements, or to ask sociologists to tell us what they are. He may be groping, or he may know; I would like to know which. Does he know for a fact that the work of modern biology is producing ideas of molecular organisation which are, in fact, going to give us ideas about the structure of buildings? We have seen pictures on television of the spiral molecules of DNA in genes. We have all got a fuzzy notion of the fantastic ideas which are coming out of the chemical and biological study of chromosomes. Nobody has ever convinced me that these ideas are any more than a gross over-simplification, just as the early ideas of Rutherford were. Rutherford's physics have nothing to do with modern atomic physics. I think we all understood Rutherford where we do not understand modern physics. You have spoken of Medawar, but if you said to him What you are doing has a direct connection with modern architecture', I suspect that he would say 'What absolute nonsense!' Is that a fair supposition or not? I throw it out because I have a feeling that there is a connection but I cannot see it. I remember that we all got inspiration from 'Growth and Form'. We felt that the relationship of shells, sunflowers, the Fibonnacci Series and spiral forms had something to do with ways of organising buildings to promote growth. Is something similar going to come out of modern biology?

Mr Henry T. Swain [A]: I would like to say a word about one of the points which I

think has missed the target. In general, I think Dr Banham has hit the target in almost every case, but there is one slight danger on which I should like to comment I think that, correctly, he has postulated or predicted the idea of the next ten years being based on an architecture which arises from a careful study of the client's programme for the building. I only hope that that is so, because I am sick and tired of Japanese one year and Nervi the next year, and I think that an architecture based on the real requirements of people is obviously in accord with the main philosophy of modern architecture: I do not think that it is all of it, but it is obviously an aspect of it. I hope Dr Banham is correct in this, but I think that architecture is an art, and, like all arts, it is a communication between people, and an understanding of people lies at the heart of it. I do not understand a way of formulating a client's brief based on sociological surveys or statistical methods; the only method I understand is going out with the client, a living human being, and working out a brief on the actual operation of buildings of similar types. In this way, you get the ideas of people as well as the facts, and we must be very careful that we do not swing off to the idea that we cannot design buildings except girded round with a lot of statisticians, sociologists, biologists, etc. Really, we formulate the programme of a building directly with real people. I say that because in my experience of building schools (and I must quote schools because Dr Banham quoted them himself) they have never been based on social sciences. The reality of our best schools in this country is based not on the inspiration of biology but the inspiration of education and people learning in the sort of environment which encourages a civilised

Mr A. Hickman [A]: Does Dr Banham say that in 20 years' time, one will feed the sociologist's and biologist's findings into a giant computer, coming out with an answer from it and doing away with architect's buildings?

Mr J. P. Steadman: I wonder if there is not an important distinction to be made between what we might call the influence of the human sciences at a fundamental level and at a more superficial level? Dr Banham mentioned the influences of Einstein's work at the beginning of the century. I wonder it he would agree that some of this influence was, in fact, received by the art world and by the architect as pseudo-scientific, half understood? There is, on the other hand, the more immediate influence of human sciences, such as sociology, ergonomics, etc., which the architect can use in a practical way as opposed to more hazy notions of fundamental thinking in science which can only influence attitudes, rather than actual practical decisions. I wonder if it is not rather a red herring to refer to the work of Medawar, etc., in biology, because the effect of their thought on actual practical architectural decisions will not be felt for a considerable time, until it has percolated to a more practical level where actual day to-day decisions can be made by the architect from the human sciences.

The report of the Discussion is continued on page 269.

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## Notes and Notices

#### NOTICES

One Hundred and Twenty-third Annual General Meeting. Tuesday 9 May 1961. The One Hundred and Twenty-third Annual General Meeting will be held on Tuesday 9 May 1961 (at the conclusion of the Special General Meeting to be held on that date at 6 pm), for the following purposes:

Formally to admit new members attendng for the first time since their election.

To receive the Annual Report of the Council and Committees for the official year 1960.

(Copies of the Annual Report were sent to members on 14 April.)

Note: It will facilitate matters if members will give the Secretary prior notice of any questions they may wish to ask.

To nominate two members as Hon. Auditors for the ensuing year.

(Light refreshments will be provided before the meeting.)

Ninth General Meeting, Tuesday 27 June 1961 at 6 pm. The Ninth General Meeting of the Session 1960-61 will be held on Tuesday 27 June 1961 at 6 pm for the following purposes:

To read the report of the Scrutineers appointed to examine the voting papers for the election of Council for the Sessions 1961-62.

To present the London Architectural Bronze Medal 1960.

To present the RIBA Award for Distinction in Town Planning to Mr Eric Lyons, OBE [F].

To present the Royal Gold Medal for 1961 to Mr Lewis Mumford [Hon. A]

(Light refreshments will be provided before the meeting.)

Annual Discourse, Wednesday 17 May 1961 at 6 pm. The Annual Discourse will be given by Mr Alistair Cooke (USA) on Wednesday 17 May 1961 at 6 pm.

Responsibilities of Members under the Code of Professional Conduct. The Council have recently considered cases which give rise to concern at the apparent lack of appreciation of the responsibilities of qualified assistants, whether in private or official architectural practice, in connection with the Code. There also appears to be wide-spread misunderstanding of the provisions of Clause 6 in connection with offering services to local authorities.

The Position of Qualified Assistants. Qualified assistants, corporate members of the Institute, are responsible for strict compliance with all the provisions of the Code of Professional Conduct equally with the principals under whom they work.

While a principal is held responsible for any contravention of the Code, e.g. the dispatch of letters soliciting work originated by an assistant in the office; the Council regard the assistant as equally responsible and to be held liable to answer for his action in the event of any charge of unprofessional conduct being made.

The Code of Professional Conduct is

published in the RIBA Kalendar and the Council expect all corporate members, irrespective of their employment, to be familiar with it.

Clause 6: Offer of Professional Services. Clause 6 of the Code states that a member or Student must not advertise or offer his professional services to any person or body corporate.

The term 'body corporate' covers any form of corporation, business organisation or local authority which may as an organisation act in the capacity of a building owner. Where such an organisation employs an official architectural staff the position of the official architectural staff the position of the official architect is in no way different from that of a building owner: consequently it is a contravention of the Code for any architect in private practice to write uninvited to an official architect asking to be considered by his authority for private commissions. It is no defence in such an approach to argue that the approach was from one professional colleague to another.

The RIBA Appointments Department. Members and Students of the RIBA and the Allied Societies are reminded that the services of the Institute's Appointments Department are available to employers requiring assistants and to assistants seeking salaried employment.

Employers are invited to notify the Secretary of vacancies in their offices, giving details of the work to be done, the qualifications and salaries offered. Special note: Until after the Congress of the International Union of Architects in July, the Department will be open from Monday to Thursday only of each week, as part of the Congress organisation is being undertaken by the Appointments Officer. Members Students wishing to visit the Department are requested to telephone or write in advance for an appointment. If this is not practicable, they should obtain from the Secretary an application form which when completed and returned to the Institute, will enable the Department to send the applicant particulars of vacancies suitable to their qualification and requirements, or to submit their names for vacant posts. Subject to the above limitations, the normal service of the Department will, of course, be maintained.

The IUA Congress, 1961. The IUA Congress, 1961, the theme for which will be 'New Techniques and Materials – Their Impact on Architecture' will be held in London from 3–7 July 1961. This will take the place of the British Architects' Conference.

RIBA Kalendar 1961-62. Members will remember that last year we asked those members and Students who required a copy of the Kalendar to return the postcard which was enclosed with the JOURNAL. This resulted in a considerable saving on the publication of the Kalendar and the same procedure is being adopted this year. A postcard was enclosed with the April

JOURNAL and those members who would like to have a copy of the next Kalendar sent to them when it is published in October, are requested to return it completed not later than 31 May (overseas members by 30 June). Copies will only be sent to those who return the card. Members are asked to notify the Secretary of any necessary changes in the next issue of the Kalendar, particularly changes of address, as soon as possible, and in any event not later than 30 June.

The Sir Banister Fletcher Library. The Library will be closed from Monday 31 July to Saturday 19 August, inclusive. During this period, no inquiries of any kind (personal, telephone or letter) will be dealt with. This is the first time that the Library has been completely closed since August 1948, and has been made necessary by several urgent and complicated tasks of reorganisation. All sections of the Library will be open at the usual hours from 21 August, with the following exceptions: August: Monday to Friday: closed at 5 pm. Saturday: closed at 1 pm. September: Saturday: closed at 2 pm.

## Competitions

Note. An applicant for the conditions of a competition must state his registration number.

Government Office Building and Conference Centre. Last day for submitting designs: 12 noon on 2 October 1961. Full particulars were published in the JOURNAL for April, page 221.

Heywood Helliwell Ltd.: Exhibition Stand. Last day for submitting designs: 17 May 1961. Full particulars were published in the JOURNAL for March, page 182.

Housing Development in Hertfordshire. The Watford RDC are to promote an architectural competition for mixed development on a site of eight acres at Bedmond, Abbots Langley.

Assessors: Mr Clifford Culpin, OBE, MTPI [F],
Particulars will be published shortly.

Burgh of Motherwell and Wishaw: New Civic Centre. Last day for submitting designs in the first stage: 1 June 1961. Full particulars were published in the JOURNAL for March, page 182.

City of Lincoln: Civic Centre. The date for submitting designs has been extended to 8 August 1961. Full particulars were published in the JOURNAL for January, page 102.

City of Westminster: New Housing Scheme, Last day for submitting designs: 10 July 1961. Full particulars were published in the JOURNAL for January, page 102, but in addition it should be noted that corporate members of overseas societies allied to the RIBA are also invited to compete.

International Competition of Ideas for Church Building. The Danish Ministry of Ecclesiastical Affairs invite architects, sculptors, and painters from the whole world to participate, separately or in groups, in an international competition of ideas with the purpose of exploring the possibilities of working out plans for a Lutheran church in a modern residential quarter.

The programme and other competition material which have been drawn up in accordance with regulations for international competitions in architecture and town planning and for international competitions in painting and sculpture, may be ordered through: The Secretariat of the International Competition of Ideas for Church Building, c/o The Federation of Danish Architects, 66 Bredgade, Copenhagen K, Denmark.

An amount of D.kr. 25 (£1) covering forwarding charges, etc., will have to be paid.

Projects to be sent to organisers by 1 September 1961.

#### COMPETITION RESULT

New Hospital at Boston, Lincolnshire

Winners: Grenfell Baines and Hargreaves [F/A]. Highly commended: Messrs Charles B.

Highly commended: Messrs Charles B. Pearson, Son and Partners [F/AA]. Other finalists: Mr V. J. J. Sames [A], Mr John R. B. Green [A], Mr Charles H. Hyde [A], Mr Clifford Kingstone [A].

## Board of Architectural Education

RIBA Examination in Professional Practice and Practical Experience. The Examination in Professional Practice and Practical Experience was held in London and Edinburgh on 6 and 7 April 1961. Of the 149 candidates examined, 123 passed and 26 were relegated. The successful candidates are as follows:

Andrew: E. P. Bamber: Robert Bannister: W. G. Barrett: M. V Bedford: H. T. Benjamin: W. H. Benstead: J. D. Berridge: D. W. Bevis: J. D. Black: J. H. Blair: D. G. Blenkin: John Bond: P. A. Bonnett: D. J. Breton: F. B. Brink: R. E. Brockwell: J. A. C. Browning: A. J. H. Brunskill: Alan Bryant: Richard Butler: J. S.

Chaffer: Mrs H. G. Coote: D. J. Crouch: J. D. Cuthbert: E. W. Dixon: C. B. Dixon: M F Dryden-Brownlee: John Eaves: P. J. Evans: S. F. Farmer: M. J. Fawcett: R. F. Firth: Kenneth Forrester: Donald Fuller: R. C. Galbraith: William Geden: R. A. Gillham: G. B. Graebe: David Gray: R. B. Green: F. G. J.

Grossman: K. W. Grove-Stephenson:

J. C. Gynn: S. T. Hall: R. D. Hannah: George Hawksworth:

Richard Hayman: P. J. Hicks: C. G. Hills: N. R. Hitch: W. A Hodges: T. K. Honer: P. W. Hooper: J. C. W. Hope: Miss B. M. Howarth: B. P. Howell: W. L. Jackson: Alan Jones: Frank Jones: Ronald C. L. Joyce: M. R. Kay: Bryan Kemsley: R. W Kennedy: D. K. King: D. E. Klavins: Zigurds Loban: C. M. Long: R. W. Longfield: M. B. K. Lowe: P. F. Manger: C. E. Marriott: Philip Marshall: T. D. Mims: R H.

Nellis: Philip Nightingale: Norman Page: R. C. Palmer: J. H.

Morris: F. W

Morris: G. M.

Nasatyr: Max

Murnaghan: A. M.

Parkinson: Cyril Parsons: I. R. Pearlman:

Wolfgang Phillpott: A. G. Powell: B. E. Proctor: K. W. Puffahl: M. A. Ouilter: E. C. Rawson: K. J. Roger: R. D. W. Roseberg: M. A. Rushton: B. J. Sergeant: R. H. Shaw: R. G. Shepherd: J. A. Shirgaonkar: M. D. Shobbrook: P. G. Simpson: Douglas Sims: J. G. Skinner: W. E. A. Smallbone: Miss

M. A.
Smith: Colin S.
Smith: Raymond
Stoney: O. R. A.
Taylor: E. J. F.
Thompson: R. B. G.
Thomson: David
Thomson: R. C.
Tyler: C. J.
Vanezis:
Christopher

Wade: A. A. G. Wager: S. J. Warwick: E. J. Watkins: H. D. Watson: B. D. Webster: Hugh Westbrook: R. H. Wilkinson: D. A. Willars: D. T. Williams: Leon Woodley: D. G.

Berks, Bucks and Oxon Architectural Association. Dinner in Oxford. Members of this Association entertained over 100 guests at a Dinner held in New College, Oxford, on 24 March.

The Vice-Chanceller made a most amusing speech. The difficulty at Oxford, he said, is to know what to pull down in order to make room for modern buildings. He suggested that a building should be demolished in the first flush of its unpopularity, say within 50 years of being built. If that had been done they would no longer have the Town Hall with them or the Midland Station. It was more difficult to decide whether Ruskin's science laboratories should also go, although they had long ceased to be efficient for their purpose.

The Vice-Chancellor expressed a refreshing confidence in modern architecture and said he would not hesitate to put a frankly modern building near an eld one. It had always been done in the pust, why not today? He felt there was now a much greater appreciation of what architects were trying to do and he only wished that they were not so often handicapped through meagre funds.

After Dinner the President RIBA addressed members and their guests informally in the Founder's Library. He said that more money was being spent today on building than ever before and money seemed to be the yard-stick of our present civilisation. In the past, particularly in medieval times, piety had played a large part in human activity. Many old foundations, ecclesiastical and scholarly, had resisted the temptation to exploit every acre of land and college gardens had a social value which was quite apart from their economic value. Today there seemed to be no contemporary expression of piety and he wondered whether there should be some sort of tithe on larger projects to ensure that money was available for the things which mattered but which had no commercial value.

## **Allied Societies**

Changes of Officers and Addresses

Devon and Cornwall Society of Architects. Plymouth Branch. Chairman, P. C. Roseveare [4].

East Anglian Society of Architects. President, E. R. Crane, DSC [F] (as from 1 July 1961).

Essex, Cambridge and Hertfordshire Society of Architects. Cambridge Chapter. Hon. Secretary, P. M. Cowell, MA [4], 'Whitecroft', Haslingford, Cambs.

Manchester Society of Architects. President-

elect, Haydn W. Smith [F]. Nottingham, Derby and Lincoln Society of Architects. Derby Branch. Chairman, W. J. Farmer [A]. Hon. Secretary, D. J. Montague [A], 83 Barton Road, Derby (both as from 1 July 1961).

Ghana Society of Architects. President, B. G. White [A]. Hon. Secretary, Miss Hanna Schreckenbach, PO Box 2535, Accra, Ghana.

New Zealand Institute of Architects. President, A. L. Salmond [A].

Ontario Association of Architects. President, Douglas E. Catto, BARCH, FRAIC.

Transvaal Provincial Institute of Architects. President, M. D. Ringrose, 60 Biccard Street, Braamfontein, Johannesburg, South Africa.

## **General Notes**

Miami University. The Graduate School of Miami University, in conjunction with the Department of Architecture, announces a one-year graduate programme leading to the degree of Master in City Design. Candidates must be graduates of a school of architecture or city planning. Additional requirements are an undergraduate course in the principles of economics and at least three months' practical experience in a planning office or the equivalent. (The economics requirements may be made up during residence.) Applications should be made by 1 June to Professor Rudolph Frankel, Department of Architecture, Miami University, Oxford, Ohio, USA.

Town and Country Planning Association. Sir Frederic Osborn, who has been Chairman of the Executive Committee of the Town and Country Planning Association for the last 25 years is to retire. He will be succeeded by Mr Peter Self, MA. Lecturer in Public Administration at the London School of Economics.

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The Islington Society. Under the presidency of Sir Basil Spence, PPRIBA, an Islington Society has been formed on the lines of others in London and elsewhere which have proved their usefulness in promoting local

The objects of the society are to encourage the promotion and safeguarding of the amenities of Islington, especially in such directions as:

(a) a good standard of design in new buildings and layouts;

(b) preservation of buildings of distinction, trees, and other desirable features;

(c) improvement in the urban scene in the way of street furniture, advertising, traffic, lighting, open spaces and kindred matters:

(d) increasing the public's interest in these amenities.

To ensure wide membership the minimum subscription has been fixed at five shillings. The address of the Honorary Secretary is 8 Alwyne Villas, London, N1.

Housing Conference. The subject of the Housing Centre Annual Conference at County Hall on 21–23 June will be 'The Right Accommodation at the Right Rent and Price'.

The opening address will be given by Sir William Holford, PRIBA, President of the Housing Centre Trust. The other speakers include Mr J. L. Womersley [F], City Architect, Sheffield.

Full particulars of the Conference are obtainable from The Secretary, The Housing Centre Trust, 13 Suffolk Street,

London, SW1

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Shop Units in Development Schemes. Reprints of the article 'Shop Units in Development Schemes' (February 1961 JOURNAL) are available, price 1s. 3d., post free, from the JOURNAL offices, 66 Portland Place, W1.

The Gropius Lectures. The first of the annual Gropius Lectures was given at Harvard University on 15 April by Dr

Sigfried Giedon speaking on 'Constancy and Change in Architecture'.

Conference on Timber Engineering. The first International Conference on Timber Engineering is to be held at the University of Southampton, from 18-23 September. It is being organised jointly by the University of Southampton and the Timber Development Association.

Papers will be presented to the Conference under four main headings - description, construction, design, research. Subjects covered will include 'Shell Roofs in Brussels and Holland' by Mr J. H. Pestman of Holland; 'The Design, Testing and Construction of a Timber Conoid Shell Roof' by Dr L. G. Booth of the University of Southampton; 'The Application of Research to the Design of Timber Roof Structures' by Mr D. W. Cooper of the University of Durham; as well as papers on the economics of timber roofing, international developments in the design and construction of timber shells and folded plates, methods of jointing and testing of timber roof structures. Part of the con-

ference will be devoted to site visits.

Australia, Austria, Czechoslovakia,
France, Holland, India, Norway, Poland, Russia and USA will be among the countries represented at the Conference.

The Conference Secretary is Dr H. G. Allen and requests for further information should be addressed to him at the Department of Civil Engineering, University of Southampton.

Conference on Developments in Plastering. A one-day conference on 'Developments in Plastering' has been arranged by the National Federation of Plastering Contractors to take place at the Connaught Rooms, London, on Tuesday 20 June.

Applications for tickets should be made, without delay, to the National Federation of Plastering Contractors, 82 New Cavendish Street, London, W1. The price of tickets, including luncheon, will be £2 2s.

## **Obituaries**

Shri L. M. Chitale, FIIA, AMTPI, FITP [F]died on 23 December 1960.

Mr S. L. Chitale [A] writes:

'Shri L. M. Chitale, one of the leading architects of Madras, passed away at Madras on 23 December 1960. He was born at Parashuram, Ratnagiri District, on 6 December 1893. Educated at University College, London, he qualified as an Associate of the RIBA in 1923. He has travelled Great Britain, France. Belgium, Germany, Austria, Italy and

'Before going to England, Shri Chitale worked with Mr H. V. Lanchester, PPTP1 [F], at Lucknow, where he associated himself with the work of UP's Council Chamber, Christian College School and Hostel Buildings and Prince of Wales Theatre, etc. He worked also with Messrs Lanchester, Lucas and Lodge in London for seven years, during which period he worked on hospitals, Jodhpur Palace, UP's Post Office, educational buildings, housing and town planning schemes.

'In 1925 Shri Chitale qualified as an Associate member of the Town Planning Institute, London. During 1929-32 he was Assistant Consulting Architect to the Government of Madras. In 1939 he was elected a Fellow of the Royal Institute of British Architects, and in 1945 as Fellow of the Indian Institute of Architects.

'During the Second World War, Shri Chitale was the Regional Camouflage Officer to the Government of Madras. His books on Civil Defence drew much interest all over the world.

'In 1955 he was elected as a Fellow of the Institute of Town Planners, India, at New Delhi. He is one of the founder members of the Institute.

'In public life, Shri Chitale was the Chairman, Board of Studies in Drawing and Architecture, Madras University, and was a Member, All India Board of Technical Studies in Architecture and Regional Planning.

'He had founded an endowment with the University of Madras for a Lectureship on "Indian Art and Architecture" and for the award of a medal to be awarded to the best Student in Architecture of the Madras University every year.

'His services to architecture were recognised by the Government of India in 1957, when he was decorated with the title of "Padma Shri" by the President of India.

'Shri Chitale has to his credit several university buildings, colleges and office buildings, nursing homes, cinemas, factories, etc. Special mention should be made of the Reserve Bank Buildings at Nagpur, LIC Building at Madras, Indian Institute of Public Administration and Indian and Eastern Newspaper Buildings at New

'An ardent exponent of Indian architecture, he blended ancient style and modern methods and brought forth an architectural expression which depicts the grandeur of ancient Indian Architecture and the strength of modern building methods. Many monumental buildings all over the Indian subcontinent stand proof of his high creative talent.

## Notes from the Council Minutes

#### Meeting held on 11 April 1961

## Appointment of RIBA Representatives

a) Ipswich Civic College: Council for Art. Mr Birking Haward [A]. Council for Building. Mr Peter Barefoot [A]. Both are appointed for one year from May 1961.

b) Southend-on-Sea Municipal College: Architecture, Surveying and Building Architecture, Surveying and Building Advisory Committee. Mr P. F. Burridge [F] reappointed for the year beginning May

c) BSI Committee CLB/7-Clay Bricks. Mr F. B. Pooley [F] .

d) Professional Classes Aid Council. Mrs A. H. Wolfe (reappointed for three years from June 1961.)

Membership. The following members were elected: as Fellows 8: as Associates 85. Students, 41 Probationers were elected as Students.

Applications for Reinstatement. The following applications were approved: as Associates: Ronald Hubert John Geary, Henry Kenneth White.

Obituary. The Secretary reported with regret the death of the following members: Professor J. S. Siren [Hon. Corresponding Member], Laxman Mahadeo Chitale [F], Harry Jackman [F], David Barnes Jenkinson [F], Chimanlal Motiram Master [F], Orrel Hyde Herbert Nuttall [F], Frederick Napier Pinder [F], Frank Coutts Webster, OBE [F], Richard James Archibald [Retd F], Athelstan Linton Iredale [Retd F], James Donald [A], Gaston Gottier [A], Professor Frederic Lasserre [A], John Wasdale Lee [A], Rex Procter [A], Frederick Edward Collington [Retd A], Arthur Leihrs Rogers [L], Harold Arthur James [Retd L].

By resolution of the Council the sympathy and condolences of the Royal Institute have been conveyed to their relatives

Francis Xavier Velarde, OBE, BARCH [F], died on 28 December 1960, aged 63.

Mr Herbert Thearle [F] has written the following appreciation:

'With the loss by death, in his early 60s, of Francis Xavier Velarde is underlined how few of us are among the elect. He was one of the gifted, endowed with the rare quality of a sensitive originality and, even from the earliest days, his work seemed so easily contrived and so refreshingly different from the pedestrian norm. This uniqueness had many facets to which all who met him responded, and with the work the quality was such that appreciation came readily from enlightened and unenlightened alike.

'Mainly his output was ecclesiastical and the major churches, apart from notable ones at Blackburn (1931), Blackpool (1956) and Pinner (1957), are mostly in and around Merseyside. A group of lesser ones are to be found at Alsager, Much Wenlock and Monkmoor, all chapels and in the "Mary Webb" country. Three further churches will be carried out posthumously in the Home Counties at Potters Bar, Boreham Wood and Twickenham. The local ones, beginning with St Matthew's at Clubmoor (1927). when at that time Velarde was quickly into partnership with Weightman and Bullen, and ending with Holy Cross, Birkenhead (1959), not only brighten the dreary parts in which they are to be found but make those confronted with them both spiritually and architecturally aware.

'In addition to all the basic architectural qualities of articulation and proportioning, and invariably on a limited budget there is to be found in his churches, and necessarily less emphatically in his schools, of which Scarborough (1936) and Southport (1938) are outstanding, an enchantment compounded of form, colour and detailing of a distinctive personal flavour. The common denominator, however, is always a good brick with unobtrusively matching mortar joint. It is interesting to note that the early preference for the parapet wall was superseded by the later introduction of the

overhanging eaves.

'Inside his buildings particularly, and indeed outside them too, but to a lesser degree, a spectator is lifted to their creator's own level of perception. Thought by some to be unpractical - "I've being doing churches all my life and I've never known one move before", there nevertheless was a marked shrewdness which, it is imagined, helped considerably to the realisation of his projects. It was this combination of hard headedness and naïvety that is perhaps the key to his life and work; two recollections, typical of many, will illustrate this. First, in the 1914-18 War, having transferred his allegiance from the navy to the army (he found the sailors too rough), he used to tell how he was ordered by a zealous young captain to replace some sandbags at a trench top. The following day, the bags being still untouched, Velarde was commanded once more to do the job but again refused; angrily jumping up himself, the officer fell back with a bullet through his head. "You know", said Velarde, told him it was dangerous and that it really didn't matter." Secondly, his student contemporaries will recall a game of cricket played behind the school during which a lot of steam was let off and several windows broken. Charles Reilly soon after sailed



St Alexander's, Bootle, 1956 Architect: F. X. Velarde Photograph: Herbert Thearle

into the studio to recover the cost of repairs by collecting cash from each student. "Were you playing cricket in the yard, Bridgewater?" . . . "Then half a crown, please." And so on he alphabetically went through the studio until, arriving at Velarde who was busily working away, he asked in a by now very brusque voice indeed, "Cricket in the yard, Velarde?" "I don't mind if I do", was the ingenuous reply. So taken aback was the professor that Velarde got off scot free but being no cricketer this was not unfitting.

Throughout his career, notwithstanding the foregoing, the motivating force was Reilly's stimulus and encouragement and it is impossible to think of one without the other. Velarde felt his passing acutely. Both saw much of each other, the bond being one of amiable eccentricity and both, strangely, were uncommon in being men without music. I suspect Reilly was quite without ear and although Velarde once heard Carmen at the Opéra Comique it was less for the music than the Spanish associations of the opera. As paternally he was of Spanish origin, everything to do with Spain interested him. Spring should have seen him in Spain again - starting from Gibraltar and travelling northwards home by car, his wife chauffered him everywhere, with the sun at his back and colouring the places and buildings he loved well.

'In addition to the new churches, chapels and schools he carried out in the past three decades, many existing interiors have been enlivened by him. To all his projects he gave more personal attention than variable health really permitted and although some of his detailed drawings were slight it used to be uplifting to see them taking shape in the studios and shops of the craftsmen he enlisted. Where such persons were concerned he could be quite ruthless; old associations and even friendships would be waived if he believed - as he often did - the job could be bettered by going elsewhere. Nevertheless, the building operatives knew instinctively that Velarde was an exceptional architect and contractors, engineers, quantity surveyors all were present to pay final tribute at his funeral.

'After qualifying he maintained contact

with the University School of Architecture as a lecturer for 25 years, having at all times freedom of practice. As a teacher he was understandably more drawn towards the gifted and his criticisms and lectures were always stimulating and awaited with eagerness. But on the below-average student he was sometimes severe. Inadequacy, particularly of aesthetic sensibility, provoked a harshness in him that could, with the female students, culminate in tears; like Reilly he could not suffer dullards gladly. Simi larly mediocre building angered him and of this he was a remorseless castigator. He could be equally scathing of what he thought cliché ridden or gimmicky architecture and during these moments he would doubtless have conveyed to those not properly acquainted with him that he lacked a little both in heart and conscience,

'His academic honours were plentiful.

The major ones were the Holt and Honan Scholarships administered respectively by the University and Liverpool Architectural Society, both of which took him abroad. So too did the RIBA Godwin and Wimperis Bursary, which he was awarded in 1937.

'At one stage of his career a motor accident immobilised him for a period and subsequently handicapped him – particularly during the Second War years – until the end. In the circumstances what he achieved, with the help always of a devoted and understanding wife, is remarkable. His eldest son is continuing the practice.

'Reference should be made to a generosity which many experienced. He was attracted by and unable, not infrequently, to resist purchasing beautiful things and sometimes these in the form of gifts would be received unexpectedly by friends. Unexpected, too, would be the briefest of postcards from Europe and the sunshine islands off its coasts. As a highly civilised person, he savoured life to the full. He greatly appreciated help given by colleagues and found time to write congratulating fellow architects when encountering anything he admired. Too much perhaps to claim Velarde a legendary figure, as was Reilly in his lifetime, but for his all illuminating zest, creative ability, gentle ebullience he will be remembered. So close were he and Reilly when alive that with his going it seemed that much more of Reilly was lost

'In a northern cathedral there is on an ambulatory wall an 18th-century inscription which ends – from memory – "...that humanity will drop a tear, not for him, but for those who had the misfortune of surviving him." Though written long ago. it will yet serve for Francis X. Velarde.

Frank Coutts Webster, OBE (MIL), FRICS [F]

died on 10 March 1961.

Mr Percival T. Hiorns writes:

'Frank Coutts Webster was born in September 1882 at Broughty Ferry, Angus After completing his scholastic education at the Grove Academy, in that town, he was articled to Mr Keith, a Dundee architect; and during his pupilage attended the Dundee Technical College. Here he was awarded the Armitstead Silver Medal and prize – the highest award in the Institute: two other Armitstead prizes; the Bronze and Silver Medals in Architecture of the Dundee and District Technical Association:

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'Upon completing his articles, he became an assistant to an architect in Stirling, before coming to London to join the staff of the late Mr Roland Plumb [F], at his offices in Fitzroy Square. He was elected an Associate of the RIBA and of the RICS in 1910, and a Fellow of both in 1930.

During his service with Mr Roland Plumb, he acquired considerable experience in the design of psychiatric hospitals – including the large Mental Hospital at Napsbury, near St Albans. Early in 1914, he was appointed Deputy Architect to the Board of Control (Mental Health); but having joined the London Scottish in 1908, was one of the original members who went to France for service during the First World War - in September 1914 - taking part in the severe fighting during that and the following year, attaining the rank of Sergeant. In the autumn of 1915, he was commissioned to the Army Ordnance Department, and reached the rank of Major, being awarded the OBE (Military Division) and twice mentioned in Despatches, The London Scottish Old Comrades Association inform me that "he will be sadly missed by all his Old Comrades and brethren in the Regimental Lodge and

'Arising as a result of a Royal Commission and the shortage of psychiatric hospitals accommodation and that for the mentally sub-normal, at the end of the First World War, the Department was involved in a heavy and continuing programme of new hospitals, and colonies for the mentally sub-normal, together with extension and modernisation of existing accommodation, and the provision of early treatment groups (admission units and convalescent homes). Major Webster figured prominently in the official agreement and approval of these proposals, to facilitate which - as a recognised authority - he was largely responsible for the preparation of two remarkably useful and informative brochures dealing with the design, construction and equipment of psychiatric hospitals and hospitals for the mentally sub-normal, respectively.

'He was appointed Chief Architect to the Board of Control in 1937 - upon the retirement of the late John Kirkland [F] - and retired from the professional Civil Service in 1948

'He undertook evening teaching for many years - up to the commencement of the last war - being responsible, latterly, for architectural design, building construction and structural mechanics classes at Westminster Technical College, SW1.

'In the late 1920s he designed and carried out a Catholic Home for Girls at Highgate; and he was associated with Messrs J. M. Sheppard and Partners [FF] since 1946, and very actively engaged in this partnership since leaving the Civil Service, until he finally retired in December 1960. His partners refer to his loyalty and co-operation, great energy and enthusiasm, and the respect in which he was held by all. During this period, he was closely associated with the following major works:

(a) New hospitals at Londonderry; Muckamore, County Antrim; and extension and modernisation at Downshire Hospital - for the Northern Ireland Hospital Authority. (b) New Hospital for Mentally Sub-normal Patients, at Lea Castle, Kidderminster, for the Birmingham Regional Hospital Board. (c) New buildings and modernisation at St George's, Morpeth, and Garlands, Carlisle, Psychiatric Hospitals, for the Newcastle Regional Hospital Board.

(d) New Primary School, Alderton; and Secondary School, Wickford, for the Essex County Council.

'Major Webster was a kindly, quiet, high principled, and somewhat unassuming personality, but possessed considerable strength of character, great zeal, and outstanding ability. He reciprocated the loyalty which he appreciated in those who served with him, and did everything possible to further their interests. He will be greatly missed by all those former colleagues and friends who were privileged to know him."

## Membership List

## **ELECTION: 11 APRIL 1961**

The following candidates for membership were elected on 11 April 1961.

AS FELLOWS (8)

Beaton: John Ronald, Dip.Arch.(Abdn), Lusaka, Northern Rhodesia.
Brigden: Gerard William, Dip.Arch. (The Polytechnic), Tunbridge Wells.
Chandler: Edwin George, MTPI, Oxford.
Eastwick-Field: John Charles, BA(Arch.) Goalen: Gerard Thomas, BArch.(L'pool), AMTPI, Harlow.
Hare: Richard Williams, BA(Arch.)(Lond.), Salisbury. Sansbury.

Snodgrass: James Robert, BArch., Dip.TP (Rand), Woodford Green.

Stillman: John Cecil, Dipl.Arch.(UCL).

AS ASSOCIATES (85)

Abbott: David Lidington, Dip.Arch.(Birm), Solihull. Solihull.
Appleby: Kenneth, B Arch.(Dunelm).
Belcher: John Anthony, Bracknell.
Bhogal: Ajit Singh, Dip.Arch.(Melbourne),
Melbourne, Australia.
Breedyk: Hubert William, Dip.Arch.(Birm), Breedyk: Hubert William, Dip. Arch. (Birm), East Croydon. Brooks: Edwin, Leeds. Butcher: Ralph, Dipl. Arch. (Hull), Hull. Calvert: Charles Augustine, Dip. Arch. (Birm), Primingham

Birmingham. Birmingham.
Carter: William John, BArch. (Rand),
Nelspruit, Transvaal, South Africa.
Chamberlain: Leonard Victor, Dipl.Arch. (Canterbury).
Chaplin: Frederick John Michael, BA, Dip.

Arch.(Cantab.), Norwich.
Chojnicki: Leszek Bogdan.
Coast: Herbert Edward, Marlow.
Coates: Neil Trevor, Dip.Arch.(The Poly-Coates: Neil Trevor, Dip.Arch.(The Polytechnic), Salisbury.
Crawford: (Mrs) Barbara, Dip.Arch.(Birm),

Water Orton Da Cruz: Francisco Rui, DA, Dip.TP(G!as.), Glasgow.

Davies: Edward Kenneth Morgan, Dip.Arch. (Wales), Cardiff. De Gruchy: Graham Francis de Quetteville,

De Gruchy: Granam Francis de Quetteville, Dip.Arch.(Rand). Deuchars: John, B A(Cantab.), Bexhill-on-Sea. Dickinson: Brian, Dipl.Arch.(Leeds). Douglass: Ronald, Dip.Arch.(Birm), Birming-

ham.

Downes: J. Neil, BArch.(NUI Dublin), Dublin. Edmundson: Basi John, Dip.Arch.(Birm),

Farnham.

Ellison: Anthony, Dipl.Arch.(Leeds), Shipley.

Emanuel: Raphael Ralph, BA(Arch.)(Manchester), Salford.

Espie: James Arthur George, Dip. Arch. (Sheffield), Belfast.

Evans: Derek, Dip.Arch.(Sheffield), Sheffield.

Evans: Derek, Dip.Arch.(Sheffield), Sheffield. Fairfield: Robert C., B.Arch.(Toronto), Toronto, Ontario, Canada. Fay: Philip Gerald, BArch.(NUI Dublin), Newry, Co. Down. Finney: John Brett, Mosman, NSW, Australia. Geeson: Cedric, Dip.Arch.(Leics.), Leicester. Gray: Christopher John Robert, Dip.Arch. (Wales), Newport, Mon. Greenacre: Philip James Frederick, Dip.Arch. (RWA). Bristol

(RWA), Bristol.

Hattrell: Michael Walter, BA(Cantab.).

oventry Henniker-Gotley: Anthony Roger, Dip.Arch.

(Birm). Hinch: David, Dip.Arch.(Nottm), Nottingham. Ho: Kian Chin, BArch.(Melbourne), Singa-

pore.
Jeffery: Robert Stephen, A A Dip!.
Joliffe: Sidney, Dip. Arch. (Birm), Surbiton.
Joyce: Peter Ernest, Leeds.
Kelly: Edward James, Dip. Arch. (Wales),

Kelly: Edward James, Dip.Arch.(Wales), Blackburn. Lapthorn: Benjamin Alan, Dip.Arch.(Birm),

Coventry.

Lewis: Peter William Thomas, Dip.Arch.
(Birm), Birmingham.

Lewis: Wynford Elvet, Dip.Arch.(Wales).

Llanelly.

Liptrot: Malcolm Hugh, Dip.Arch., Dip.TP

(Manchester), St. Helens.
Lukyn Williams: Humphrey John, M.A.
(Cantab.), Dip.Arch.(The Polytechnic).
March: Ronald John, Hamilton, Ontario,

Canada.

Maucorps: Philippe Jean Louis Helion, B.Arch.
(CT), Newlands, Cape. South Africa.

May: Paul Quinton, Dip.Arch.(Leics.), Birmingham.

mingham.
Melman: Cyril Errol, B Arch.(Rand), Sydney,
NSW, Australia.
Meyer: Nicolaas Gerhardus, B Arch.(Pretoria),
Cape Town, South Africa.
Mills: Brian Norton, Dip.Arch.(Birm).
Mills: John Herbert, Widnes.
Murray: George William McLeman, Dip.
Arch.(The Polytechnic), Orpington.
Nance: Alan Lindesay, B Arch.(Melbourne),
Melbourne, Australia.
Nicoll: Peter Kirkus.
Parker: (Miss) Flizabeth Anne, D A(Edin)

Nation: Peter Airkus.
Parker: (Miss) Elizabeth Anne, DA(Edin.),
Holywood, County Down.
Penfold: Anthony Howard, MCD, BArch.
(L'pool), AMTPI, Birmingham.
Penman: David Roland, DA(Edin.), Edinburch

burgh. Penrose: Anthony Jack, Dip.Arch.(RWA), Bristol.

Bristol.
Perry: Peter Jack, Dip.Arch.(The Polytechnic).
Randall: John Christopher, Dipl.Arch.(Oxford), Bournemouth.
Rao: Domalpalli Madan Mohan, Dip.Arch.

Rathbone: Charles Benedict, BArch., MCD (L'pool), Liverpool. Rhodes: Alan Wheater, Dipl.Arch.(Leeds),

Rhodes: Alan Wheater, Dipl.Arch.(Leeds), Ambleside. Ridgway: Malcolm Lewis, Dipl.Arch.(Nor-thern Polytechnie). Roberts: Brian John, Dip.Arch.(Wales). Rodda: Bryan Thomas John, Dip.Arch.(The Polytechnic), Ewell. Rowe: (Miss) Jillian Mary, Dipl.Arch.(Leeds), Leeds.

Sanderson: Stuart William, Dip.Arch.(Birm), Wolverhampton. Sargent: Peter, Dip.Arch.(Sheffield), Sheffield.

Saunders: Robert, Dip.Arch.(Wales). Scott: Alan Rowland, Dip.Arch.(Birm), Bir-

Scott: James MacIntosh, DA(Edin.), Kirk-Sheridon: Leslie John, Dip. Arch. (Manchester),

Maghull.
Sutcliffe: Thomas Michael, Dipl.Arch.(UCL).
Tan: Eng Keong, Dipl.Arch.(UCL), Penang, Thomson: Walter Alexander, Dip.Arch.(Birm), Tipton.

Thorpe: Stephen John, BA(Arch.)(Lond.). Trimble: Ronald Henry, Dip.Arch.(The Polytechnic), Belfast.
Trout: Frank David, Dip.Arch.(Nottm), Not-

aughan: Ernest John, Dipl.Arch.(UCL).
Vatts: Colin John, Dip.Arch.(Sheffield), Colwyn Bay.
Williams: David Lindsay, Dip.Arch.(Wales), Cardiff. Woods: Michael Francis, BA(Cantab.), Dip. Arch.(Cantab.).

## Members' Column

This column is reserved for notices of changes of address, partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

#### **APPOINTMENTS**

Mr. E. G. Chandler, MTP1 [F]. City Architect and Planning Officer. Oxford, has been appointed Architect to the City of London at a salary of £4.280 rising to £4.640. Mr Chandler, who is 46, will take up his new appointment on July. He will be Head of the City Planning Office and will advise the Corporation on all architectural matters. He will also be responsible for the liaison of all the authorities concerned with reconstruction.

Mr S. Hardy, Dipl. Arch. [4] has been appointed by British Railways, North Eastern Region to the position of Architect, Chief Civil Engineer's Office, York.

Mr Barry J. Kimmins [A] has resigned his position as Chief Architect, Ministry of Education, Imperial Ethiopian Government, and he has been appointed UNESCO Adviser on School Construction to the Ministry of Education, Government of the Sudan.

Mr R. McGregor Williams [A] has resigned his appointment as Company Architect with Chiesmans Ltd, and he has accepted the post of Architect to the Property Department of Hong Kong and Shanghai Banking Corporation in Hong Kong.

#### PRACTICES AND PARTNERSHIPS

As from 5 April 1961, the architectural and town planning practice of Grenfell Baines and Hargreaves, and the quantity surveying practice of Arnold E. Towler, have merged into one professional organisation to be known as Design Partnership. Founder partners of the new firm will be Mr George Grenfell Baines, oBr, DIP. TP, MTP [F]. Mr John Wilkinson, DIPARCH(Manc.) [A]. Mr Arnold E. Towler, FRICS, Mr William White, AADIPHONS [A]. Mr Thomas Hargreaves [A] is retiring from the practice. It is intended that the partnership in the future should cover all the professions connected with the design of buildings and physical environment generally.

Mr S. L. Belfer [A] has resigned from his partnership with Lewis Solomon, Kaye and Partners [FF]/A], and is now practising on his own account at 83 Bedford Court Mansions, Bedford Avenue, London, WC1. Representatives by appointment only.

Mr David Brain, Des. RCA, AADIPL [A] has started his own architectural and industrial design practice at 38 Pottery Lane, Holland Park, London, W11 (Park 1922), where he will be pleased to receive trade literature, etc.

Messrs Derek Bridgwater, Peter Shepheard and Gabriel Epstein [FF/A] who have been practising together as Bridgwater and Shepheard for several years wish to announce that they have changed the name of their firm to Bridgwater, Shepheard and Epstein.

Messrs Brunton, Baden Hellard and Boobyer [AA] have established an office for consulting work at 131 High Street, Croydon. Surrey (Croydon 5154), where they will be pleased to receive trade and technical information, particularly where this is to A4 size and referenced under the SfB classification.

Mr W. D. Campbell [4] and Mr J. E. Arnott [4] have formed a joint partnership to be known as Campbell and Arnott, and their office address is Kinloch House. Market Street, Haddington, East Lothian.

Mr Morton J. H. Cowie [A] has taken Mr Douglas W. Seaton [A] into partnership. The practice will continue at 53 Manor Place, Edinburgh 3, under the style of Cowie and Seaton.

Messrs Eberlin and Partners [F/A] have taken into associate partnership Mr Dennis N. Rosillo [4]. The firm will continue to practise as Eberlin and Partners at 3 College Street, Nottingham.

Mr Charles W, Farrance [A] has relinquished his position with Sir Robert Tasker and Partners [F/L] and will continue his practice from No. 6 Gray's Inn Square, Gray's Inn. London, WC1 (Chancery 2387).

Messrs Ian Fraser and Associates (Mr Ian Fraser [A], Mr R. J. Lansdown [A], Mr A. P. Holt [A] and Mr S. H. Eagleson [A]) have taken into partnership Mr J. H. McMorrow [A], Mr A. D. Gough [A], Mr F. C. Chung [A] and Mr R. W. Paterson [A]. The practice will continue under the same style at 15–6 Bedford Street, Strand, London, WC2, and at 30–1 Barton Arcade, Deansgate, Manchester 3.

Mr H. V. Godfrey [4] and Mr Michael Messenger [F] announce that they have merged their two practices. The partnership will be known as Godfrey and Messenger and will be conducted from 148 High Street, Herne Bay, Kent (Herne Bay 332) and 63 Oxford Street, Whitstable, Kent (Whitstable 2390).

Messrs J. Douglass Mathews and Partners announce that they have taken into associate partnership Mr Ronald Marshall [A], Mr Roy Latham, Dip.Arch.(Manc.) [A], Mr Michael Simpson, MA(Cantab)B Arch. [A] and Mr Robert D. Gay, Dip.Arch. [A].

Mr Stanley G. Owen [A] has retired from his partnership with Messrs Alison and Hutchison and Partners [F/A], Edinburgh, and has taken up an appointment as principal architect with Boissevain and Osmond [A] in charge of their Glasgow office. He will be pleased to receive trade literature, etc., at 2 Clairmont Gardens, Glasgow, C3.

Mr Ronald Payne [4] has pleasure in announcing that he has taken over the practice of the late Moxhey and Ponting, Town Hall, St Mary Church, Torquay, Devon, and will be pleased to receive trade literature.

Mr Charles E. Pearson [F] and Mr George R. Lovell [A] in practice as Messrs Charles B. Pearson and Son announce that they have taken into partnership Mr Peter P. Lund, DIPARCH [A] and Mr C. Michael Pearson, RA [A]. The practice will continue at 18 Dalton Square. Lancaster; 24 Loxford Street, Manchester 15: and 71 Wimpole Street, London, Wl, under the style of Messrs Charles B. Pearson, Son and Partners.

Mr Peter Noel Perkins [4] of 50 Baker Street, London, W1, has opened a branch office at 1 Winchester Road, Basingstoke, Hants, where he will be pleased to receive trade catalogues, etc.

Mr H. G. Round [4] has taken into partnership Mr Jerrold Rostron [4]. The firm will continue to practise under the style of Messrs H. Geoffrey Round and Partners, 53 Oxford Street, Weston-super-Mare, Somerset (Weston-super-Mare 617).

Messrs W. H. Saunders and Son (Mr John H. Saunders [L], Mr R. W. Leggatt, AMTPI [A] and Mr K. Newton) of Southampton, London, Portsmouth, Coventry and Gosport, announce that Mr A. M. Seward [A] has entered into full partnership of the firm as from 1 April 1961. At the same time Mr John Scaife [A] became an associate at the London office, and Mr C. W. Hewett [A] an associate at the Southampton office. Messrs G. J. Chalmers [A] and

D. Webster [A] continue to be associates at the Portsmouth office.

Mr Donald A. Shanks [F]. Mr H. A. Patton [A]. Mr John Neil [A], Mr Edwin S. Leighton [A]. Mr G. R. Smith [A] and Mr Wm. C. McVeigh [A] have entered into partnership practising under the style of Ulster Architects Partnership at No. 39 University Road, Belfast 7 (Belfast 21362).

Mr Eric N. Smallwood [L] itus taken into partnership Mr Roger F. Evans, Dip.Arch. (Birm) [4] and the practice will continue under the style of Smallwood and Evans, from 5 Dudley Road, Wolverhampton (Wolverhampton 25704).

Mr John Stirling [A] has commenced in practice on his own account at Yorkshire Bank Chambers, Princes Street, Harrogate, Yorkshire, and has been joined in practice by Mr Michael Sykes. They will be pleased to receive trade literature.

Mr John Storie [4] formerly with Fermanagh Education Architects' Department, has commenced practice on his own behalf at 28 light Street, Enniskillen, Co. Fermanagh, Northem Ireland, where he will be pleased to receive trade literature.

Mr T. O. Thirtle [4] has retired from the practice of F. W. Charity, Thirtle and Duke as from 31 March last. Mr Reginald J. Duke [5] is continuing the practice under the same style at 342-6 Grand Building, Trafalgar Square, London, WC2.

Mr David Thomas, AMTP1 [A] is now practising as architect and town planning consultant from 2 Burdon Terrace, Jesmond, Newcastle upon Tyne 2.

Messrs Kenneth Wakeford, Jerram and Haris [FF]L] have pleasure in announcing that as from 1 April 1961 they have taken into partnership Mr J. W. Fraser [A] who has been managing their Bristol office. The partnership will continue to practise from 7 Connaught Place, Bristol 8, and the style remains as at present.

Mr Derek Walden [A] will be practising from 136 London Road, Chelmsford, Essex (Chelmsford 55027) where he will be pleased to receive trade literature, catalogues and samples.

Messrs Watkins and Park [AA] of Basildon and Leigh-on-Sea have opened an office at Imperial House, Dominion Street, London, EC2, where they will be pleased to receive trade catalogues.

Mr Stanley Woolmer [F] is practising from La Vieille Demeure, Beaumont, Jersey, Channel Islands (Jersey South 1667) on his own account, and as a planning consultant. He will be pleased to receive catalogues, etc.

Messrs Clyde Young and Bernard Engle [F]AA] of 8 New Square, Lincoln's Inn, London, WC2 (Chancery 7671) have taken into partnership Mr William Wye [A] who will join the present partners Mr Bernard Engle [F], principal, Mr V. C. Myer [A] and Mr Roland Lancon [A]. The style and title of the firm will remain unchanged.

#### CHANGES OF ADDRESS

Mr Eric A. Barber [A] has changed his address to 4 Hedingham Road, Hornchurch, Essex.

Mr K. Barnard [A] has changed his address to 4 Claremont Avenue, Beverley High Road, Hull, Yorks.

Messrs A. H. Brotherton and Partners [L]/Al] of 39 Oxford Road, Manchester, and 20 Alderley Road, Wilmslow, have moved their main offices to the Wilmslow address. They are retaining an office at their Manchester address but all correspondence should be addressed to Wilmslow.

Mr John Anthony Buck [A] has changed his address to 21 Hillview Court, Guildford Road, Woking, Surrey.

Mr G. Alan Campbell [A] has changed his address to 249 Hunt Road, Bryanston, Johannesburg, South Africa.

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RIBA J

Mrs Janet Cooper [A] has changed her address to 14 Spencer Walk, Putney, London, SW15, where she will be pleased to receive trade catalogues and technical literature.

Mr Alfred A. Coutts [A] has changed his address to The War Office, wAI, Room 210A. Read. Chessington, Surrey (Trojan 2438).

Mr A. D. H. Embling [A] has changed his address to 31 Carlingford Road, Hampstead, London, NW3 (Swiss Cottage 2764).

Mr C. R. Heath [A] has changed his address to 2 Thornkill Terrace, Sunderland, Co. Durham.

Mr John Jones [4] has changed his address to 132x Cookham Road, Maidenhead, Berks (Maidenhead 2526).

Messrs Anthony F. Lucy and Co. [F/A] have opened new offices at Albert Buildings, Church Street, Portadown, where **Mr C. McKee** will be pleased to receive trade catalogues, etc.

Mr C, R. Millington [A] of 9 Ryefield Road, Beulah Hill, London, SE19, has changed his address to 27 Sandown Court, Grange Road, Sutton, Surrey (Vigilant 4907).

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Mr John B. Morton, AA DIPL [4] and Mr Brian H. Harmsworth, Dipl. Arch. [4] (Morton and Harmsworth) have moved to larger offices at 21 North Street, Horsham, Sussex (Horsham 60181-2).

Mr J. H. Pogson [A] has changed his private address to 14A Willow Lane, Norwich, Norfolk.

MrH. M. Robinson [F] has changed his address to 7 Rodborough Road, Dorridge, Solihull, Warwicks (Knowle 3743).

Mr D. Johnston Wilson [A] has changed his address to 11 Riverview Avenue, Ballycairn Road, Coleraine, Co. Londonderry.

## PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Established practice in provincial town available to a young energetic qualified man. Retiring principal would remain in an advisory capacity for a reasonable period for a small remuneration. Box 244, c/o Secretary, RIBA.

Associate (29), MA (Cantab.), AA DIFL seeks position with view to partnership in well established London practice. Experience covers commercial. private and local authority contacts. Some capital available. Box 247, c/o Secretary, RIBA.

Associate in early 40s, with some work and capital available, is in search of partnership in medium sized practice, London preferred. Box 249, c/o Secretary, RIBA.

Members with established west country practice proposing to open branch office in Bristol wish to purchase or work in association with existing practice with good connections in that city. Box 250, c/o Secretary, RIBA.

Established practice in north-east England offers a co-partnership arrangement to young associates who do not necessarily prefer London or the south'. No capital would be needed but a short probationary period on salary would be required. Box 251, c/o Secretary, RIBA.

Associate (40), eight years in private practice as principal with wide design and administrative experience at home and overseas seeks partnership with older member who wishes to reline gradually from practice. More affinity to sound practical design in well-tried methods, construction and finishes rather than to purely contemporary outlook. Some capital available. Area preferred, eastern counties, north of Thames, south of Humber. Box 252, c/o Secretary, RIBA.

Associate (45), 20 years' extensive and varied experience in private practice, at present Senior Architect to large industrial company, desires position as senior leading to partnership in west or south-west England. Some capital available. Box 253, c/o Secretary, R1BA.

Associate, Dip.Arch., 36 years old, twelve years' post-graduate experience, wishes to purchase partnership or practice. Capital available. Box 254, c/o Secretary, R1BA.

Associate, 20 years' experience, last six years own practice in Rhodesia, contemplating return to UK seeks appointment with a view to partnership, preferably South or West England or overseas. Some capital available. Box 255, c/o Secretary, RIBA.

Fellow (45) UK training, experience and good connections, desirous of retiring from his sizeable Southern African practice, will visit Britain end of May, and would like to hear of any opportunities for purchase or partnership in medium-sized London or Southern England practice. Alternatively would gladly discuss proposals of senior post with view to partnership later on mutually agreeable terms. Box 256, c/o Secretary, RIBA.

Fellow with established London practice (on eve of an expansion) would consider applications from experienced senior assistants with a view to future partnership. Box 257, c/o Secretary, RIBA.

#### **ACCOMMODATION**

Required September or earlier, about 1200-1500 sq. ft. of well-lit office space, preferably Gray's Inn, Lincoln's Inn, cr Westminster areas. Sub-let considered. Box 248, c/o Secretary, RIM.

## ABS

#### **Professional Indemnity**

The importance of adequate Insurance cover is once again stressed by the increase in the number of claims made against architects in the course of last year and by the amounts involved. The ABS Policy indemnifies the architect in respect of any sum (up to the amount of Indemnity selected) he may be required to pay following a successful claim against him in respect of professional neglect, omission or error. Legal expenses in connection with his defence and costs which may be awarded against him are also covered.

Many claims prove to be without foundation, but inevitably legal expenses – often very substantial – are incurred in disputing the charges made. These expenses are covered by the policy which also provides for the cost of legal assistance in the recovery of professional fees.

Our facilities for the transaction of this type of insurance have been expanded and we are in a position to offer very wide cover at rates of premium which are highly competitive in the light of present day conditions.

Write for particulars to:

The Manager,
ABS Insurance Agency Ltd,
66 Portland Place,
London, W1
(Telephone: Langham 5533)

## **Practice Notes**

## **PRACTICE QUERY**

**Chambers of Commerce** 

Q: I would like to know whether under the RIBA Code of Professional Conduct I am permitted to become a member of my local Chamber of Commerce and if so whether I may have my name in the classified list in the Year Book.

A: From the standpoint of the RIBA Code of Professional Conduct it is quite in order for a member of the RIBA to become a member of his local Chamber of Commerce. It is also permissible for members to have their names in the classified lists which appear in the Year Books of Chambers of Commerce.

#### TOWN AND COUNTRY PLANNING

Enforcement Notice: Whether Planning Authority estopped by representation that permission not required

Southend-on-Sea Corporation v. Hodgson (Wickford), Ltd.

Lord Parker, CJ, Winn and Widgery, JJ 15 February 1961

Appeal by case stated.

Builders, who were looking for premises in Southend-on-Sea which they could use as a builders' yard, wrote to the borough engineer saying that they had found land which they understood had been so used for about 20 years and that they would be pleased if the borough engineer could tell them if the land could still be used as a builders' yard. The borough engineer replied: '... the land ... has an existing user right as a builders' yard and no planning permission is therefore necessary. builders bought the land and moved a quantity of equipment and materials on to it and used it as a builders' yard. They would not have bought the land had they thought that planning permission was required. A few months later the town clerk wrote to the builders saying that the corporation had received evidence that the land had no existing use as a builders' yard, and in due course an enforcement notice under Section 23 of the Town and Country Planning Act, 1947, was served by the corporation on the builders requiring them inter alia to stop using the land as a builders' yard. The builders appealed to the justices and the justices upheld the builders' contention that the corporation were estopped by the borough engineer's letter from adducing evidence to contradict its contents and quashed the notice. The corporation appealed.

Lord Parker, CJ, said that he had been inclined to support the decision of the justices, which clearly accorded with common sense. The submission for the corporation, however, was that estoppel could not operate to prevent or hinder the performance of a statutory duty or the exercise of a statutory discretion which was intended to be performed or exercised for the benefit of the public or a section of the public, and that the corporation's discretion to serve an enforcement notice in respect of development which had in fact been carried out

without permission was a statutory discretion of a public character. For the builders, it was said that that principle, though it applied to a positive public duty, did not extend to a statutory discretion. His lordship could see no logical distinction between the two. In the case of discretion, the duty imposed by statute was to exercise a free and unfettered discretion. A public authority could not by contract hinder the exercise of their discretion, and similarly they could not fetter themselves by estoppel. His lordship had come reluctantly to the conclusion that the appeal must succeed.

Winn and Widgery, JJ, concurred. Appeal allowed.

(Reproduced, by courtesy of the Editor, from The Solicitors' Journal.)

#### NUISANCE BY TREES

Black is the owner of an estate bordered by poplar trees. White is the owner of the land on the other side of the boundary and is proposing to build a house there. Eyeing the poplars with some misgiving, he tells Black he must cut his poplars down as he wishes to build and that the roots of the poplars will interfere with the foundation of his house and cause damage.

It is popularly believed that a person who comes to a nuisance cannot complain of it: that if Snooks elects to build a house next to a glue factory he must take the air as he finds it. If this were the law it would amount to persons obtaining a sort of easement with a right to discharge poisonous gases, smells and whatnot in all directions, thereby virtually sterilising a belt of land in their environment. It follows that Black cannot use the argument that if White elects to build he will be the author of his own misfortune. Nevertheless, since an injunction is an equitable remedy it cannot be said that White's conduct will have no bearing on the outcome, if it only be costs, in the event of litigation.

Black can, of course, decline to cut down his trees and await the day when White sues him either quia timet or when the damage to the house has actually occurred. A quia timet action would probably fail, it is suggested, for this reason. If White's architect, having regard to the proximity of the trees, took no special precaution to see that the foundations took into account the danger from the roots, this might affect the court's inclination to grant relief or the degree thereof. White could hardly argue that his architect had taken no special precautions and therefore that damage was likely to come about in the near future. On the other hand if the design dealt with this danger from roots, the court would say that there was no hurry and that perhaps there would be no damage at any time.

Although it is no defence to say that the plaintiff has come to the nuisance, yet he has still to make out his case. Suppose that on Black's boundary there is a large oak tree and that White, without taking proper steps to get rid of the roots on his side, builds close up against it, with the consequence that the house is lifted and cracked. Is White entitled to recover all the damage caused in this way? The answer in principle is yes, but if the court came to the conclusion that White was trailing his coat and had maliciously built close to the tree with a view to making a nuisance of himself to Black, it might regard all his evidence with

some scepticism; the practical result might be that the damages would be found to be very much less than claimed because the judge held that White had exaggerated his claim

A useful little book entitled *Trees in Towns*, dealing among other aspects with nuisance, was published by *The Estates Gazette* a few years ago. (Reproduced, by courtesy of the Editor, from *The Estates Gazette*.)

#### IN PARLIAMENT

Town and Country Planning Act, 1959 (Section 31). Mr Corfield asked the Minister of Housing and Local Government and Minister for Welsh Affairs what action he proposes to take to amend Section 31 of the Town and Country Planning Act, 1959, in the light of the decision in Buxton v. Minister of Housing and Local Government.

Mr Brooke: The law provides that the planning applicant and the planning authority, as well as anyone else with rights under Section 37 arising out of ownership of the land, can make application to the High Court to have a decision of the Minister quashed on certain grounds. I do not think there is a case for empowering other people to apply to the court, if none of those thinks fit to do so. A grant of planning permission does not, of course, impair the rights of adjoining owners at common law.

Mr Corfield: Does not my right hon. Friend appreciate that, unless this Section is amended so as to widen the meaning of the term 'person aggrieved', persons appearing at public inquiries, no matter how much their interests may be affected, will continue to have no safeguard against procedural error or abuse of the power conferred by Parliament, unless it so happens that they have legal interests in the land, which may not be the case? Does not he agree that such a situation very largely defeats the object of a public inquiry, as opposed to a hearing between two parties to an application, since the public inquiry is an invitation to such persons to make their represen-

Mr Brooke: If there has been an error, one would prima facie think that either the applicant, or the planning authority, or someone with a legal interest in the land would wish to call attention to it. One must consider these matters in practical terms. If my hon. Friend's suggestion were adopted, and he needed planning permission to build a house somewhere, almost anybody could hold him up for months by saying that he was aggrieved because he did not like the proposed house, and that person could start a legal action on a technicality. That is the difficulty.

Mr M. Stewart: Would the right hon. Gentleman consider whether arrangements could be made whereby people who are interested, as distinct from being legally aggrieved, by the grant of planning permission, are fully informed when applications for planning permission are made?

Mr Brooke: This is a matter to which I have been giving a good deal of consideration. I do not think that it would be sensible to require planning authorities to advertise all the planning applications that are made, for they run into something like 500,000 a year. But I am anxious that the local authorities should bring to the notice of local people who may be interested any

proposals of a major character, and I have it in mind to circularise local authorities on those lines. (21 March 1961.)

Greater London Local Government. Mr Sorensen asked the Minister of Housing and Local Government and Minister for Welsh Affairs when he anticipates concluding his consideration of the reports from local authorities on the proposed reform of local government in the London area; and, in view of the effect on the policies of local authorities caused by uncertainty about future developments, if he will give an assurance that no major alteration will take place in the present pattern of local government in the London and neighbouring area for a specified period of time.

Mr Brooke: I will make a statement as soon as I can about the views expressed to me by the local authorities, but I do not think it is practicable to give such an assurance as is suggested.

Mr Sorensen: Does not the Minister appreciate that many local authorities are in a quandary? They do not know how to plan for the future because of the uncertainty. Would it not be highly desirable if, for x number of years, at least, they could make their plans on the present basis and so avoid the uncertainty?

Mr Brooke: I do not think I could announce a standstill for a number of years. This uncertainty is not created by the Royal Commission. In fact in its report the Royal Commission drew attention to the uncertainty about the future and I am anxious to bring that uncertainty to an end as early as possible. (21 March 1961.)

Greater London Local Government, Mr Iremonger asked the Minister of Housing and Local Government and Minister for Welsh Affairs when he anticipates being in a position to make a statement of his views on the Report of the Royal Commission on Local Government in Greater London.

The Minister of Housing and Local Government and Minister for Welsh Affairs (Mr Henry Brooke): I have now received replies from 108 local authorities. Almost all supported the two points that the boroughs and districts should be given greater powers, and that for some purposes Greater London needs to be treated as a single entity with an overall authority within the local government structure. Widely different views were expressed about the nature, area and functions of any such authority.

Opinion was almost equally divided for and against a directly elected council for Greater London. Many of the critics of it supported an alternative plan for a joint board to co-ordinate the activities of the county and county borough councils in a limited field: broad town planning questions, co-ordination of overspill, major traffic matters and planning of main roads.

Along with other Ministers, I am studying all the replies in detail, and will make a further statement as soon as possible. (28 March 1961.)

#### Rights of Light

Members' attention is drawn to a paper by Bryan Anstey, BSC, FRICS, which is published in the *Chartered Surveyor* for April 1961.



History Discuss

page 260 Mr R. Sar a sociolog biologists some of t revolution architectu take acco thing one now. I a grouping studies, so have the science, a do not de There are particular alarming surrogate a knowle but also of subject science. I sociology should ha

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## History of the immediate future

Discussion continued from page 260

Mr R. Samuel: I want to ask a question as a sociologist; unfortunately, there are no biologists here so they cannot question some of the suppositions. It is not a very revolutionary programme to suggest that architecture, in the next ten years, should take account of the client. This is something one thought was actually the practice now. I am very alarmed indeed at this grouping together of different sorts of studies, some of which, for instance biology, have the precision and predictability of science, and some, such as sociology, which do not deserve the name of science at all. There are all kinds of useful information that sociologists can provide for architects, particularly on planning densities. I find larming the idea that our work should surrogate for the architect's, not simply from a knowledge of people who are sociologists but also because sociology is not the kind of subject that can provide the certainties of science. I would at least ask you to count sociology out of the sciences which you say should have an influence.

Dr Banham: I have far more notes and queries than I can hope to handle, without going away and writing another lecture. Fortunately, various people asked questions some of which were capable of being answered by 'Yes' or 'No'.

Mr Pritchard asked two: is the Pirelli building a good office building? Yes, but a lot of good office buildings are not terribly good architecture. That certain something which Ponti gains from having a specific programme to do for the Pirelli organisation makes it more than just a good office building. I personally found the office interiors, on which I know a very great deal of work was done, no more than competent. This building makes its greatest effect on the outside where, in fact, it has to advertise, and where, in fact, it is seen at its best.

Have I seen the *Daily Mail* House of the Future of 1928? Yes, I have seen it, and I put it in an article about other Houses of the Future in *Design* magazine, but I can't now remember if it ever got into print.

What I did like was the way many contributors answered one another's points - my notes are covered with arrows pointing from one contributor to another, and words ringed round and joined together. For instance, Mr Gibson registered slight alarm at finding Hunstanton listed along with Henry Swain: yet a little later, Mr Walters talked about intuitives, and their work, being yet another influence on the rationalists. Thank you very much; you have dealt with one another rather nicely. But, of course, the real point at issue here, apart from the one from the 'Rough neck' at the back of the house - I will see him outside afterwards; he has his coat off already - is the situation regarding the human sciences. Can I try to make the situation regarding the human sciences, in bulk, more precise? I will come back to the Medawar business first of all, because sociologists justifiably object that some aspects of sociology are not sufficiently quantifiable, not sufficiently precise, to figure along with the others.

Those who found Professor Medawar's Reith Lectures difficult to listen to - and most Reith Lectures need pretty close attention - should read the printed version with footnotes at normal reading speed. and I think they will be found to be comprehensible, in spite of Professor Medawar's enormous range of evidence. But the point about Medawar is that his range of evidence runs from the interior chemistry of the body as far out as quantitative study can reach: that is to say, he includes quite a lot of demographical evidence, and things like intelligence test assessments. Wherever the information is quantifiable, it comes within his grasp; but where sociology goes off beyond that, as of course it must because it deals with human beings who are not altogether quantifiable, he is prepared to let it alone. But, even so, the actual range of ground which he covers is quite fantastic.

That one mind should be able to embrace so many variants, so many dependents of the general observational discipline of science, is to me extremely impressive, and that is where the Macfarlane Burnet situation begins to impinge on architecture; indeed, to pick up from Mr Walters at the back, as well as Professor Matthew at the front, one of the lessons of the biologists at the moment is their inclusive range. I have been justifiably picked up by Mr Walters for pursuing a fairly narrow lane through a big field. I expected more people to rise to that. But men like Medawar or Macfarlane Burnet carry in their minds, besides the actual professional discipline with which they are working at the moment, the ability to move over, comprehendingly if not creatively, into any number of adjoining disciplines. They can step out of their narrow lane, and the result is an example of a total attitude. That is one of the ways in which the new biology stands as an example to architecture.

Also, of course, architects, being normally men of inquiring minds, are interested in any field where things are really snapping, crackling and popping – hence the violent response to the historical studies, or the proportional studies of Le Corbusier at the beginning of the '50s. Architects are abnormally sensitive to disturbance in adjoining fields, and they are already partly

involved in the human sciences. I think they are going to notice that, in this particular field, there is a remarkable concentration of talent, and that remarkable talent is producing results in a quite spectacular way. In addition within the range of studies covered by that talent, there is a great deal of factual information to be had almost for the asking, and I think it is one of the most healthy signs that architects are asking for that information and putting it to work. It is a point which Professor Llewellyn Davies always makes but which Le Corbusier made a long time ago: the more information you command, the surer your approach to design.

Finally, the last point on aesthetics, to which a number of speakers referred: the style of a new architecture. I think one thing which the historian learns is that style is the last thing you can prophesy about. Style in the narrow sense is something which is subject to so many influences, so many of them apparently chance, and unpredictable: most notably, the man who invents the style in the first place - it is worth remembering that Renaissance art was invented by a tiny club of men who would not quite fill the front rows of seats here. Style is dependent on so many unpredictable things that only at the risk of one's neck does one make prophecies on the subject. Therefore, in the next couple of decades, the critic, to survive and to keep any self-respect, will have to do what Roger Walters was asking for: he will have to go with the architect, and understand his factual, organisational and other problems, because I do not think that, for a decade or so, it is going to be safe to pass judgement simply on the grounds of what the building looks like. We are in a phase where you cannot tell by looking: what may appear to be a well-designed product may literally let you down the first time you sit in it; similarly, with buildings, what may appear in the first place to be a soundly functional building, because the outside is rather dull, may, in fact, prove to be nothing of the sort; and what may appear to be a wildly intuitive piece of architecture may prove, for rational or irrational reasons, to be a reliable piece of work.



## Chicago Revisited

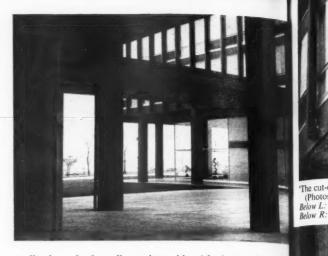
By John Kenyon [A] Assistant Professor, Department of Art and Architecture. University of Idaho

Four years ago, en route for the golden promises of California, I had seen Chicago briefly and had been repelled by the clatter of the ancient 'El' and ice piled up along the lakeshore. Returning last summer after a surfeit of stucco, looping freeways, burnt hills and pseudo'beats', the windy city seemed at least bearable, though far away as ever from fulfilling that youthful prophecy of the ebullient Frank Lloyd Wright. It is

not yet, alas, the most beautiful city in America.

There is still squalor. American slums with their rickety wood access-balconies and overflowing garbage cans look more 'slummy' than ours, but mostly, the city is just plain dull, and more of it than ever before. The great post-war building boom has spawned a sea of little brick boxes over ten more miles of prairie, and one is profoundly thankful for Lake Michigan, which stops the city dead along its straight western shore, and for that belt of green park, elms and maples not yet full-grown, that keeps back from the water the long miles of new apartments. In an area where old brick mansions serenely occupy land of now fabulous value, the road runs between lake-edge and austere black stilts of Mies's famous glass towers. After the 'architectural' strivings all around, Hollywoodish vestibules, clever canopies, and staggered balconies, dreamed-up by men of a less stern and massive mold, 860 Lakeshore Drive emerges as a universal statement, stark, vigorous, monumental. Four years ago in an icy gale, I scribbled on the back of a sketchbook that these towers had the look of a glass furniture repository. To me, they still do. That motley assortment of lamps and other objects very visible through the lower windows, causes one to question Mies's professed aim, which is to provide a nonobtrusive, rather neutral framework for people to live in. The 'framework' it seems must be stronger still, to contain those obtrusive bourgeois objects, unless of course we are hoping for a radical change of human values. The highly decorative, highly 'designed' character of many of Wright's interiors, and the empty purity of Mies's, pose for the occupants - poor devils - the same problems from opposite ends. Regarding the exterior, do others find disturbing, as I do, the 'cut off' look of those black steel mullions at the bottom, and their relationship with the stilts? An old Corb fan, I long for the definition of the Pavillion Suisse.

Illinois 'Tech', that campus in the slums, grows serenely according to plan. Here is the famous Mies corner, doublereturning black steel resting on its brick plinth, one of modern architecture's most significant and copied details. Here also is that recess in the brick panel, where it meets the stanchion, clearly separating and defining the two elements. There is an echo here, among these brick panels framed in black steel, of medieval half-timber construction, and lives there a man with soul so dead, that he would carp unduly about the concrete-encased steel behind? Fireproofing codes must be met, meanwhile, at least, the buildings look as simple as Mies intended. Inside one of the newer buildings is a fan-shaped



auditorium, back wall curving, sides 'sloping' within the circulation space. Few architects could have resisted the chance to express a fan shape externally, but here, coming within just another of the simple rectangular blocks, surrounded by corridors, classrooms, and lobby, the form has surprise and subtlety.

I have always liked the faculty apartments. There is something ordinary, in the most wholesome sense, about those concrete sections that diminish with the load, stepping-in a little at each floor, starting as 'stilts' but going all the way up. I prefer these buildings to the Lakeshore towers, though each group is the expression of very different site and circumstances. As the keen student of Piet Mondrian can enjoy the very different mood and character in different compositions of brightly coloured rectangles and black lines, so, we can enjoy such variety between one building and another, of an architect often misjudged as sterile.

The Commons is an excellent example of a Mies building put to severe test. There are totally undistinguished chairs and tables in the cafeteria and the low screens that divide dining from circulation area, are adorned on the 'inside' with a vine-and-trellis paper obviously quite beyond the architect's control. There is a nasty little shop selling those plastic foreign language aids, cheap felt pennants, and - ironically - bad coloured postcards of the buildings. The powerful steel 'grillage' of the ceiling almost succeeds in subduing all below, but the building is a vivid reminder that an architect can only provide the frame. However fine that is, what we finally see. hear, and put up with, is the impact of our whole culture.

Almost under the 'El' which rattles over these refined structures like a Steinberg toy, is the famous chapel. Here one thinks of Ronchamp. Take the two buildings in isolation and what a contrast, yet each is appropriate to its setting. Ronchamp, white, birdlike, part village shrine, part Foreign Legion fortress, crowns its high hill. Its spirit is rural, rejecting technology as a symbol. With equal deliberation, Mies van der Rohe, on this campus of a large institute of technology, has taken 'the elements as before', brick, painted steel, plate glass, pre-cast concrete units, none of them 'religious' by association, and used them in a chapel, to emphasise the 'spiritual' nature of technology. This is particularly evident in those low wide radiators that flank the glass doors, a cheering sight to an enthusiast of 'early modern'. The stainless steel cross hovering over a 7½-ton block of travertine, against a curtain of raw silk is almost too theatrical in this severe room, and a glimpse of concrete-block behind the curtain is disturbing. More disturbing is the junk room between this wall and the plate-glass end-wall, intimating again that Mies's buildings are perhaps too simple and too pure to contain untidy imperfect 'life'.

Crown Hall, Mies's 'enormous room' with the 'floating' steps and the four great girders on the outside, is the home of the Department of Architecture. Here were some superb models. different over an like geor

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The cut-off look of those black steel mullions'
(Photos: Edward D. Mills, CBE [F])

Below L: 'one of architecture's most significant and copied details'

Below R: 'curtain of black-looking glass'



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models. There were variations on the same plan, using different materials and structural systems. There was a dome over an aviary, built of tiny black steel sections in a Nervilike geometry, the loads transferred to the ground on white plastic ribs simulating concrete. Its base, suggesting a stream running down into a pool, was a fine piece of polished wood-carving in its own right. 'Are these professional models?', I asked a secretary. 'No', she said, 'Third year', and I wondered if the students did much else during that year. On the walls were some exquisite structure studies in exploded projection, and a large perspective of a brick and glass house. Every brick of the Flemish bond was drawn in, mortar joints and all, and who could claim, this close to the master's spirit, that such an exercise in patience was in vain.

Since 1940, the implacable Mies has been quietly implementing his masterplan with these spectacularly unexciting buildings, still based on the 12-foot or 24-foot module he adopted at that time. 'It was', he said, 'the biggest decision ever had to make . . . if you build one building, you can go away and leave it. But 25 years is a long time these days - and know our way of building had to reach across this time and not become out of style.' The buildings are set in fine green lawns with pedestrian walks flanked by low tubular-steel rails. The simple planting is now beginning to 'fill out'. Here and there, a creeper on the pale yellow brickwork emphasises the severe geometry of the steel frame. The absence of axially dominant, or specifically differentiated, structures gives one sense of the whole campus being the 'architecture' rather han the individual part – a powerful lesson for modern town designers.

Searching. among the buildings of the University of Chicago, for the famous Robie House, recently saved from demolition, we came upon the new Law Library, designed by Sarrinen. 'Funereal' was the comment of my companions, neither of them architects, and I agreed. Not even the Law deserves this much monumentality. The 'concertina' or 'pleated' curtain of black-looking glass, raised-up on stilts like a great accumulator, quite de-emphasises the floors on which people work, and for which it exists. Contrast is too strong



'Mies's enormous room'

[Hedrich Blessing

between this dark glass and the light stone slabs facing the single story wings that embrace a pool of formidable severity and the effect, if not funereal, is somewhat theatrical. Our old universities might take warning from this building, that to force modern architecture into certain poses is no guarantee of 'dignity' in a collegiate setting. After this very 'drawing boardish' design, the Robie House close by, and the 11T buildings we had just left, seemed surprisingly close in spirit. Was it simply that both are in the realm of very good architecture?

In the year 1909, a 27-year-old bicycle manufacturer, George Robie, sought out the locally 'notorious' Frank Lloyd Wright. Robie, unorthodox, with strong views on what a house should not be, proved the ideal client for the young Wright and got himself a masterpiece - for \$1,000 under his intended \$60,000 limit. Wright called this one of his 'prairie' houses, but whatever this part of Hyde Park was like in 1909, it is no prairie now, and the house looks surprisingly small and friendly in the midst of college buildings, with less of that long 'steamship' look that one imagines from pictures. The 'planter' boxes and little garden areas are now neglected, and the soffits of the huge overhang are in need of repair and repainting, so the once proud house has a seedy air. There are signs of settlement where the brick walls of the terraces have a noticeable sag, and nothing looks worse than a faltering line or two among those long horizontals, but shortly it is hoped, the building will be restored, and furnished as much in the original manner as possible. At present, it is the Hyde Park Headquarters of Webb and Knapp, a large real-estate development company, whose famous head, William Zeckendorf, led the campaign to save it from demolition three or four years ago. As we entered the low, dark, panelled entrance hall through the leaded glass door, a beautiful syntheticlooking blonde behind a desk told us that visitors were strictly forbidden, since groups of architectural students from the city had almost made work impossible for the tenants. We sighed, and hung about, looking wistfully through the door of the old billiard room. In a few moments, the blonde covered the mouthpiece of her telephone. 'The boss is out in the field', she whispered dramatically, 'if you wanna take a look upstairs, you can.' We walked timidly up the gentle steps behind the massive brick 'core' of the fireplace, and were in the old dining room. Glass globe light fixtures bracketing out from the lower ceiling into the central space, framed within their wood squares, are the only things that seem 'dated' at present, but like all work of such strength of character, the details that make it dated today make it doubly charming tomorrow. That great range of french doors set between brick piers, the wood frames, the leaded glass 'abstract' designs, make one long - however anti-socially - for the pre-depression days of fast bricklaying and low wages. The special brick, 15 in. deep by 115 in. long, was made in St Louis for this job.



Ahove: 'The famous Robie House'
Right: 'You go left for Religion'
Below: 'An early "prairie house" from 1902'



Your first sight of Unity Temple, as with many another masterpiece of early modern architecture, is of a building shabbier and more formidable than its surroundings. You drive mile after mile along Lake Avenue, past big houses and clubs and post offices and there it is, a shabby block of dark concrete behind the elms. Its surfaces, black from two days of penetrating rain, look very like the pebbledash on English 'semis'. It is a one material building - a grand essay in mass concrete. As you drive up in front however and get out of your car, you notice the first relieving touch. Between the corner stair towers and the great blank side panels are deep recesses with narrow jewel-like slots of leaded glass, that, once observed, seem to separate these otherwise grim walls into big screens defining and protecting a private central space. I lingered by the low broad glass doors in the little entrance court, and contemplated with mixed feelings, the typical 'inspirational' words above the canopy. With me was an old lady from California, revisiting the Oak Park taken for granted in her childhood. The doors were locked, and we turned to leave, disappointed, when a clergyman appeared in the vestibule and let us in. 'You go left for religion and right for socialising', he quoted Mr Wright.

We went 'left for religion', and up a half flight of steps into what must be one of the finest rooms in 'modern' architecture. The big surprise is the amount of light. The high bands of leaded glass set back behind those Egyptian-looking piers give much more light than one imagines from outside, but more, the flat slab of the ceiling is a great skylight, with leaded glass panels set between the deep beams. One or two of the panels were broken. 'The janitor tried to clean them from above', said our guide, 'and broke them with his broom.' He described his troubles with the outer skylight, which has been covered - temporarily - with fibreglass sheets, and the disheartening problem of trying to maintain a masterpiece with a small congregation. They would, he said, be better off financially with a new building further out in the suburbs and this one off their hands. I groaned inwardly, imagining a typical A-frame church with 'modern' stained glass, vertical redwood boards, and a free-standing cross somewhere among the landscaping.

A great many modern buildings look better in the photographs than in reality, but here, the reverse is true, and the effect of those surrounding galleries, hovering a half-story above the central seating, must be seen to be fully enjoyed.



This interior should never be illustrated without a section. Besides the beautifully interwoven spaces and masses, the expression and integration of the mechanical plant is impressive. In Unity House, the social hall across the vestibule, small globe light fixtures hang from light wood members slung under the low concrete soffits of the balconies, and the wiring is expressed as part of the design. In the main 'temple', the four big square piers that define the central space are hollow heat ducts, and remind one not a little of the 'servant spaces' of Louis Kahn, who is, I think, more successfully influenced by Wright than most of the Taliesin men.

'If you walk to the corner of Chicago and Forest Avenue'. said the clergyman, 'you will find Mr Wright's old house and studio'. I walked, to get the feel of the suburb where the scornful and passionate young prophet, too much feared and idolised in his later life, had somehow got along with his neighbours for so many years, and to one 'under the influence'. this little odd charming building from the end of the last century, so full of forms and details foreshadowing future works, is a most moving thing to see. The large octagon of the studio and the smaller octagon of the library remind one of the play of circular forms in the Friedman house of 1949. In the connecting link of the entrance, we see those rather 'Egyptian' looking capitals used later in Unity Temple, and again in the Hollyhock House in Los Angeles. Round the corner, down Forest Avenue, is the Heurtley house, an early 'prairie' house, from 1902, its theme, a loose and artfully casual composition of masonry masses under a big unifying roof. Here are elements that forcefully remind us of the unity of idea, and the preference for certain forms that run like a thread through an artist's long life. The mysterious arched entrance crops up again in the V. C. Morris Store of 1949. The prow-like front wall of the terrace foreshadows those odd bold combinations of diagonal terrace and rectangular building that we see for instance in Taliesin West. Even the saucer shaped urn on this terrace wall suggests those great hovering saucers of that never built project for a Los Angeles country club. A glance just now at the photograph of the Heurtley house in Henry Russell Hitchcock's excellent book, reminds me that the colour and texture of those 'projecting bands of the rich orange brickwork' cannot very well be captured on paper.

Oak Park, where the young Wright used to ride on horseback at four in the afternoon with a copy of Walden in his pocket, is now an inner suburb and the endless miles of identical little detached houses with 'pediments' of stainedwood boards, parody the Master's ideals of living, and make one long for the terraces, the tower-blocks, the outwardly imposed order of postwar England. To put some meaning scale, and order into this disaster will take a social revolution – the most intense efforts of many talents, backed by the will of the whole population. It is an awesome task. Meantime, Chicago, like an old chorus girl, now fat and plain and retired to the suburbs, wears under her mundane housecoat a few unique gems. They help to remind her of some splendid moments in the past, and of a great promise not yet fulfilled.

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## The Purpose and Organisation of Development Groups

Report of a Discussion Meeting held at the RIBA on 21 March with the President in the Chair. The Introductory Paper, given below in full, was by Roger Walters, AMI STRUCT E [A], and was read, in his absence abroad, by Mr C. E. D. Wooster [A].

The President: My first pleasant duty is to welcome you here this evening for what I hope will be one of the most interesting and more informal discussions that we have had in this building. This meeting is the second of two discussion meetings which have been organised by the Technical Information Committee. Our feeling was that we should reverse our usual practice of having a very long paper, ex cathedra so to speak, followed by a rather short discussion and have a short paper followed by what I hope will be a much more informative discussion than usual.

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The introductory paper, which has been circulated to quite a number of you, was prepared by Roger Walters, who is the Chief Architect in charge of the Development Group at the War Office, and where he is now, no one can say, but it is somewhere between Singapore and Hongkong. He has persuaded Mr Clive Wooster to read his paper for him and we are very grateful to him for taking on this task.

We are very pleased to see here quite a number of distinguished administrators who are concerned with the work of development groups in this country and, in addition, we have a very large selection, perhaps the whole, almost, of the consortium of CLASP; the consortium of local authorities' special programmes, for those who do not recognise the word.

#### Introductory Paper

We are meeting this evening to discuss the purpose and organisation of development groups. Faced with the job of preparing a short introductory paper, I first thought of dividing it into three parts. The first part would tell the story of how development groups came into being; the second would briefly describe the development groups as they now exist; and in the third part I would try to analyse the concept, to identify the characteristics which give the words 'development group' the special meaning they have today.

But this paper is only intended to open the discussion. To have included so much material would have made it far too long, and so I decided to abandon the first two parts altogether.

The story of how development groups came into being still needs to be written. It is a fascinating story of people and ideas, and of imagination and courage. As a piece of modern architectural history it would make a promising subject for a post-graduate thesis, or even for our professional historians, who nowadays are so close on our heels. I hope someone may soon decide to undertake it.

The second thing which I thought of

doing - to describe the development groups as they now are - has, I'm glad to say, been done already. I would like to draw your attention to a new book called Building by Local Authorities. The author is Elizabeth Layton. Her book is the comprehensive report of an inquiry initiated by the Royal Institute of Public Administration and carried out with the help of a grant from the Nuffield Foundation. It will be of great interest and value to anyone who is concerned with the public sector of building. In one of the chapters Mrs Layton deals with 'Research and Development', and I would like to commend this to you as a concise and thoughtful survey of the development groups as they now exist in this

Perhaps it will be helpful if I simply say where these development groups are: in the central government advisory departments there are development groups in Ministries of Education, Health, Housing and Local Government and the Department of Health for Scotland, and there is one working with the University Grants Committee; in the central government spending departments (those which carry out their own building programmes) there are development groups in the War Office and in the Ministry of Works; there is a development group in the Housing Division of the Architect's Department of the London County Council; and, in somewhat different but related categories, there is the CLASP consortium of local authorities and there was, until recently, a Division of Architectural Studies under the Nuffield Foundation. If we omit the CLASP consortium and the Nuffield Foundation, there are at present development groups in seven central government departments and in one local authority. It is true that development work is going on in a number of other organisations, but we are concerned this evening with development groups, groups which have a recognisable purpose and organisation of their own.

With those brief comments, I will leave the history of development groups, and their present distribution, and turn to what I hope will be the central topic of the discussion this evening. That is, to establish, if we can, what are the essential ingredients of a development group. I believe this topic to be of some importance. Now that the success of the Ministry of Education's development group has been fully appreciated, the idea has become almost fashionable. To some authorities, who are worried about the quality of design and the value for money which they are obtaining in their buildings, to set up a development group might appear to be a heaven-sent and simple solution. But it is not a simple matter to create and run an effective development group. Half-hearted attempts to do so are bound to produce disappointing results and could bring the whole concept into disrepute. We must do what we can to prevent this happening, and I would like now to give you my own views on the characteristics which should be present in a development group if it is to operate successfully.

I will divide these characteristics under three headings: first, those of the parent organisation to which the group belongs: second, those which govern the purpose of the group itself; and third, those which determine the way in which the group is organised.

#### The Parent Organisation

The parent organisation should be one which is financially responsible for a large volume of building work. I say 'financially responsible because the organisation need not necessarily carry out the work itself, but it should be in a position to control it. The buildings need not be all of the same type, and they need not be all new work - the requirement may include the alteration and modernisation of existing buildings. The important thing is that there should be an assured future demand for building, extending at least five years ahead, and preferably much farther. The parent organisation, whatever other characteristics it may have, should be a client and one which is resolved to commission buildings of known types, in approximately known numbers, within an approximately known number of years. This future demand should be recognised administratively, at the very top, and preferably made public, and the work of the development group should be directly related to it.

I would not call this statement of future demand a programme. A programme is something else. It is a firm list showing how many buildings, of which type, and on which sites, are going to be started, in which year. For the sake of those who design and erect the individual buildings, a programme is essential and should be firm for at least three years ahead. But for the development group a much longer forward look is needed. It need not be so precise, as long as it indicates the degree of repetition of similar types of buildings, and as long as it represents in an approximate form, the firm intentions of the client.

The parent organisation should have two other characteristics. From the outset it should be prepared to give its development group full support. The leader of the group should be made directly responsible to the top professional man in the organisation. This may need some major adjustments in structure, perhaps even a complete rethink about the professional side of the organisation. For this reason it may be easier to set up a development group in an advisory

department than it is in a spending department with a large professional staff. When the leader of the group has been chosen, and I think he must be an architect, he should be allowed to offer attractive salaries and working conditions. He will find it difficult enough to locate people with the right attitude of mind and he should not be inhibited im recruiting them by other kinds of restriction.

And finally, the parent organisation should be prepared in advance to adopt the results of the group's work. I know this sounds a tall order, but I am assuming that the group will produce results which are viable in the political, economic and technical contexts of its parent organisation. If it fails to do so, it will be wasting its time. The onus on the parent organisation is to express its confidence in the group by stating its intention to communicate the group's findings as soon as they are available and to apply them as widely as possible. This climate of confidence may depend as much as anything on the personalities of those who head the parent organisation and the development group, and the degree of mutual respect and understanding between them. But it should also be encouraged by placing the group within the organisation so that its formal relationships are satisfactory from the beginning.

#### The Purpose of a Development Group

The purpose of a development group is to achieve better design and better value for money. This is also the purpose of the designers of an individual building. But their circumstances are different. The designers of an individual building seek to understand the needs of an individual client and to satisfy them by constructing a particular building on a particular site. For both the client and the designers it is the first and last attempt to get it right. A development group seeks to understand the activities of a large number of users collectively, and to get as near as it can to satisfying those needs by constructing examples, knowing that more buildings are to follow, and aiming to make each one better than the last. The search is not for immediate perfection, but for continued improvement.

A development group should regard the building process as indivisible. By this I mean that it should be consciously concerned with all its aspects; with the study of human needs; with finding ways of satisfying those needs; with building technology; with cost; and with building management. And in each case its concern is with the future; with the future demand for buildings of its parent organisation, and with the long period of time, probably at least 60 years, during which the buildings will be occupied.

What are the implications of this? First, that the group should seek to acquire a deep understanding of the nature of human activities with which it is concerned, not only as they are now, but as they are likely to change in the future. It should seek to identify itself with the aspirations of its parent organisation, to perceive the significant trends, and to suggest ways of planning buildings which will allow these trends to develop freely. This applies not only to layout but to every detail of equipment and furnishing.

Similarly, in its study of building tech-

niques, the group should evolve methods which are appropriate not merely to the construction of one building, but to the efficient execution of a large number, carried out in a planned sequence. And while it must be aware of the limitations of the building industry as it is now, it should be sensitive to future development and should be ready to pioneer in the field of building technology.

In its study of cost, the group should again aim to identify itself with its parent organisation. It should try to work out ways of estimating and controlling expenditure which will simplify the work of its administrators and, at the same time, give the designers of the individual buildings the opportunity to use their professional skill to the best advantage.

And in its study of building management, which means the way in which all the members of the building team, including the user, work together, the group should seek to make the whole process more predictable. Thinking ahead, relating the job to be done to the effort available, getting the right people in the right relationship to one another, letting them know in plenty of time what they have to do, possibly keeping the team together for more than one job. There are possibilities in a large building programme for improving these things, such as do not exist when you are designing an individual building. and a development group should seek to show how advantage may be taken of them.

Inevitably, when you think about it, a development group must build. The indivisible nature of the studies I have just outlined only becomes a real thing when they are focused onto an actual building project. Any group of designers learns best by trying out its ideas in practice. It is much more effective for those who set out to advise others to do so by example rather than precept. And, in any case, how can you get intelligent and forward-looking architects unless you involve them in real building? The projects which the group builds are best chosen from among the requirements of its parent organisation. If it is a spending department, from its own programme of building; if it is an advisory department, from the programme of one of its regional or local authorities.

There is one more purpose of a development group which I regard as essential, namely that it should communicate. This may sound obvious, but as a profession we are so little used to passing on our knowledge and experience to others, that it requires special emphasis. I suggested earlier that the parent organisation should be prepared in advance to adopt the recommendations of its development group. But the parent organisation can only do so if the group succeeds in communicating its results and ideas effectively, and the parent organisation, in turn, can only pass on these ideas to others if the development group helps it to do so. Effective communication can be time consuming, exacting, even tedious, and it is therefore as well to recognise its special importance in the work of a development group.

#### The Organisation of a Development Group

When you come to organise a development group you have to translate the essential characteristics of its purpose into means of achievement. I think it would be wrong to try to define the organisation of a group precisely – to say that it should always be arranged in such and such a way. But it seems to me that there are certain points of organisation which must be observed if the group is to work successfully.

The first point is to ensure that policy, design and price go together. In other words the group should have three kinds of people in it: administrators, architects and quantity surveyors. They should be so related to each other that decisions about policy, design and price can be taken jointly, and not separately in time and place.

To discuss the administrators first, I said earlier that I think the leader of the group should be an architect. I also think he should be closely associated with an administrative opposite number who is on the same level as himself. Whether these two should be made jointly responsible for the group is a matter of debate. Both the Ministry of Education and War Office think they should, and find that the arrangement works well in practice. But whether they are formally made jointly responsible or not, what matters is that neither the professional nor the administrators in the group should control the others; policy should be made by them jointly, working together in partnership, at all levels from the top down. Intelligent and imaginative administrators can make a vital and positive contribution to the work of a development group. They can keep the group continually in touch with the climate of policy in the parent organisation, and they can relieve the professionals of much administrative work which would otherwise occupy their time. This distinction I am making, between professionals and administrators, should not obscure the fact that the administrators in the Civil Service are themselves professional people with a code of intellectual integrity which is of the highest order.

The architects in a development group may come from different schools and from different post-graduate experience, provided that they are intelligent and that they all share a basically similar attitude of mind. They should, I think, care more about architecture as a social service than as a means of personal expression. Their approach should be more rational than intuitive, but not to extremes.

Ideally, they should be sceptical and optimistic at the same time, so that they always question the way in which a question is posed and the conventional solution which is offered to it. They should be architects who will ask the user not what he wants, but what he wants to do, and how often he wants to do it; who believe that there is always a better answer to be found, even though the best known solution is one they thought of themselves; who can be imaginative and logical, enthusiastic and patient, individual and good team members. all at the same time. It is asking a great deal, and yet I believe our profession is rich in younger architects, who have not yet found the conditions in which they can do their best work, and who could meet such a challenge.

The quantity surveyors should be full and equal partners with the architects and administrators, either as permanent members of the group, or seconded to it. They should be able to act as cost consultants at all stages of the development project, 50

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While these three kinds of staff, the architect, the quantity surveyor and the administrator, are essential to its working, a development group will certainly need to engage other skills. In the study of human needs it may seek the assistance of psychology, physiology, sociology, ergonomics, statistics, and of professional experience in medicine, teaching or whatever is appropriate to the activities under study. Such skills may be found within the parent organisation, or by contacts with universities and research organisations, or by special arrangements such as the secondment of HM Inspectors of Schools to the development group in the Ministry of Education. In the study of building technology, the group may need the assistance of civil, structural, mechanical, electrical or other kinds of engineers, and these may be professional consultants, either inside or outside the parent organisation, or in industry. The group should look closely at its relations with the Building Research Station, not only for the direct help the BRS can give, but because development groups are one of the means of helping to close the gap between basic research and its application in practice. And before we leave relationships with other organisations, I think the group should at least consider entering into some form of liaison with one or two of the more progressive schools of architecture.

There are no specific rules that I can discover for fixing the size of a development group. It should be large enough to build experimental projects as vehicles for studying the human needs with which its parent organisation is concerned. It should be small enough for the group to share its attitude of mind and to acquire a real identity of purpose. One way of assessing how many people are needed is to think in terms of a number of development teams each responsible for a development project. It helps to think of a development project going through five stages. The first is the investigation stage during which the user's needs are studied in great detail and which ends with the preparation of the brief, the first tentative sketch layouts and the first approximative cost plan. In parallel with this stage goes the development of building technique. The design stage follows, during which the plans crystallise and each element of the building is designed in detail and costed. The production stage is the preparation of working drawings and the bill of quantities, in other words, communications with the builder. The fourth stage includes letting the contract and the site erection period. And the last stage is writing up the results.

A development team should be allowed at least twice as much time during the investigation, design and production stages as would be required for an ordinary scheme of equivalent size. If they can be given more, so much the better. And, in addition to the time required for the five stages which I have mentioned, allowance should be made for any background studies which may be needed to ensure that work on a

particular project is seen correctly in its wider context. Each development team will generally start small and reach its maximum size during the production stage. If there are, say, three development teams in the group, it should be possible to phase their projects so that the total load on the group remains fairly constant.

If the development group is part of an advisory department, it may be necessary to fix the size of the staff for establishment purposes and to obtain as much flexibility as possible within that size. But if the group is in a spending department, it may be possible to keep the permanent staff of the group small and to make up the development teams by secondment from the production branches of the office. This method is being tried in the War Office. It not only offers greater flexibility in numbers, but it counteracts any tendency for the development group to become isolated from the rest of the office.

There are two other points I would like to make about the organisation of a development group which is part of a spending department. One is that the development group should never be merged with the production side of the office. The development group works in different circumstances and to a different time scale to those engaged in programme work. The development teams can make a contribution to output - as we have seen this may approach 50 per cent of the output of the production teams. But if, under pressure of work, the functions of development and production become confused, the development group will lose its ability to break really new ground.

The other point about a development group in a spending department is that it can contribute to more than the design of new buildings. If I may mention the War Office again, the development group is being organised to help the office as a whole with internal procedures and building management and with relationships with outside consultants, to provide a home for services such as the landscape section and the technical library, and to include a team responsible for inspection and development in the field of maintenance.

#### Conclusion

Having described what seem to me to be the essential requirements of an effective development group, I would like to end where I began, with the parent organisation.

As you will have gathered, I am very much in favour of development groups. I believe they are one of the best means we have yet found of harnessing creative energy to the problems of building. But the future of development groups depends on the ability of large client organisations to plan their forward demands. This is the first essential on which everything else depends.

It is not easy to look ahead when large sums of capital investment are involved. It requires political courage. But the rewards of this kind of political courage are high indeed. The client department itself is the first to benefit, because it can obtain better value for money and, consequently, can do more of the things that it wants to do. Those who occupy the buildings benefit, because designers who have had time to understand their needs deeply, instead of superficially, can provide them with environments which are more efficient and more

flexible in use. And the users of the buildings are more likely to experience that sense of freedom and delight which is the special gift of architecture. And these benefits are not all, because forward planning enables the building industry as a whole to look ahead, and consequently to become more efficient, and therefore to make a greater contribution to the prosperity of the country.

About half our building is controlled by central government departments, local authorities and the nationalised industries. Much has already been done in this public sector and, while we are discussing development groups this evening, let us pay tribute to all those who have shown us what is possible. But let us also determine to encourage this trend towards planning ahead, and to learn how to do it more effectively and on a bigger scale. For it is one of the most effective ways in which politicians, administrators and all branches of the building industry can work together for the good of society.

#### DISCUSSION

The President: Roger Walters has laid this trail through some fairly well charted country. There is a great deal of experience in the room tonight which can answer his essential question – 'What are the essential ingredients of a development group?'

Mr D. G. Bannerman [A]: I think an excellent case has been made tonight for the purpose and the organisation of development groups. It seems to me, however, that the projects of the groups which have been referred to are on a fairly large scale. I am wondering whether or not the speaker could give an indication as to the limitations of a smaller local authority in relation to a development group?

Mrs Elizabeth Layton: I was going to intervene at another moment but perhaps I ought to try and answer that last question, because this is a matter to which the Royal Institute of Public Administration, for whom I wrote the book, gave some attention. I would say that the answer is that the development groups as described in this paper are not suitable for smaller authorities. They in fact involve a large investment of staff, effort and time, and this is not a thing which a small authority can do. We went into this fairly carefully and our general conclusion was that only the very large authorities can really make a worthwhile effort on this. I would, however, like to make it clear that development groups are used in many senses: for example, CLASP is not discussed in this paper, nor some of the development work of the London County Council, nor some of the development work done by other local authorities. I think that the more specialised and limited kind of development work, particularly associated with technical developments, is probably something that at any rate medium-sized authorities could do, but not the full scale development work which is connected with a continuous programme of building and which goes with very great detail into user

Mr K. C. Evans [A]: I am very interested that that particular point has come up so

soon because, much as I admire this paper, I find myself looking at this problem from what I suppose must be regarded in this context as a 'smaller authority'. Certainly, in Hertfordshire, we have always thought that we had some tradition of development work! Indeed, we have apparently, from time to time, misnamed some of our teams! I think it is quite a valid point, because clearly there are many sorts of organisation of different size. The paper really covers the very important problems of the ministries and the major local authorities; although I suppose, in fact, there can be few local authorities other than perhaps the LCC, who could rise to the suggested scale of organisation. If one assumes from the paper that a development group contains about ten architects, and one looks at the remarks about time scale, and the fact that a development project is probably going to take upwards of twice as long as the ordinary production line project, then quite clearly, there is faint hope that very many people are going to pass through a development group in this form of organisation. If one assumes a group of about ten in an organisation of about 100, the other architects' chances of experiencing this special benefit is going to happen about once in ten years, if everyone stays in the development group one year; or 20 years if they go for two years and we all know perfectly well that two years is a very modest allowance for any sort of major project. Here we see, in fact, the first danger of the suggested organisation which is important because it might frighten off young architects from joining the organisation unless they go straight into the development group.

A question that therefore arises from this is, is it true to say that development must always be quite clearly separate from production work? In Hertfordshire, we have over the years, tried various methods. We have never risen to a development group on this scale (as defined in the paper), but our experience has shown that development work which was completely dissociated from the 'production line' was not the most productive in the long run.

Our present method is to work in a rather different way, by allocating specific development tasks to groups within the office. Three of those groups (of seven) have major development tasks. We are, of course, conscious of the problem of interference between production line and development working and the way we try to overcome that, being aware of it, is to slightly over-staff the groups against normal so that we create a reasonable capacity to absorb some quite clearly defined development tasks.

If one is starting from scratch in a very big organisation, the matter is perhaps rather different; when one has many years of working tradition, one can work in this way.

Again, there is perhaps a slight fallacy in the idea that producing buildings is quite the same thing as producing a consumable product where perhaps certain development problems are clearly different from those of the production line. After all, buildings take a long time to produce.

One final point, again on the proposed organisation. Administrators in the group as defined here, presumably only apply to ministries. In local government, as presumably many people here tonight will

know, the professionals are largely their own administrators and, as such, they do two jobs. I feel that it would be a very bad thing if many of us left the hall tonight with the idea that useful development work could only take place in the rather special context and on the scale of operation as defined in this valuable paper.

Mr Stirrat Johnson-Marshall, CBE [A]: Although it is rather impertinent to comment on such an all-embracing paper as Roger Walters has written, I would like to comment on Evans's last point. He mentioned the problem of administrators within the context of this paper.

I suppose all, or a great many, of us attach slightly different meanings to the same words. I should have thought, in local government, that a lot of people – the education officer, the treasurer, the accountant and the clerk – would call themselves administrators. If that were true, and I hope it is so, then I wonder if I can go on from there. I take it that all of us architects would agree that, without patronage, there

can be no architecture. Within central and local government, administration, or a lot of what we call administration, is really patronage, if it is administration of the calibre that this country deserves. By patronage, I mean not just the efficient daily preparation of work but a deep and thorough understanding of the structure of architecture. Roger Walters touches on it when he says. in the early part of the paper, that the development group should be closely connected with the very top of the organisation in which it exists and when he says, later on, that the essential parts of a development group are an administrator, an architect and a quantity surveyor. I believe, from my limited experience, that unless we have administrative colleagues of the highest calibre and the utmost sympathy and understanding and with imaginationand incidentally, there are some of those here this evening - then there will be no really worthwhile development. The architect by himself is wasting his time. I would also like to say that administration connected with building generally, is essentially Victorian in its concept. To give you an example, competitive tendering which is applied in so many places, quite unthinkingly, is surely the sacred cow of Victorian architecture, or Victorian building sacred cow which effectively cuts us off as designers from the people who make things, and creates an impossible situation for the furtherance of good architecture. I do not wish to say that there should be no competitive tendering, but I do wish to make the point that, if you insist that there will always be competitive tendering, there will be no real development of architecture. What we need from our administrators and quantity surveyors, of course, is an alternative. Competitive tendering was invented to ensure in crude terms that there was going to be no fiddle. The administrators and quantity surveyors I have worked with have been concerned that we should devise alternative and more intelligent ways of demonstrating that we were serving the public purse. I only give an example of what I am driving at, and that in essence is the closest integration of our administrative colleagues with us as technicians. In fact, that they should be and are, if they work that way, the patrons of today.

I believe this technique may be applied in small local authorities as well as large ones, but most important of all, government should give a lead if it believes it to be worthwhile.

I think it has been demonstrated that, in certain circumstances, it has been immensely worthwhile. I am a little disappointed that there are still some very large departments who apparently do not think so.

Mr G. B. Oddie [A]: I would like to follow up what Mr Johnson-Marshall has said, because he has drawn our attention to a distinction which is very useful for all architecture today and for development work in particular. By equating administration with patronage, he has drawn attention to the fact that there is another element involved, namely, someone who can represent the user. This the administrator will not often do, and thus the big problem is to find someone who can foresee what the user needs are going to be. Mr Walters's paper neglects to point out that the success of the best development work in this country has been due in large measure to the fact that, associated with the development teams, if not actually members of them, have been people like HMIS in education, who have been able to see the long-term trends of use. Any development work undertaken without the participation of a user representative of that kind suffers considerable disabilities. This ties up with a certain conflict in Walters's paper where he distinguishes between the development group and the ordinary project, by saying that the designers of an ordinary project seek to understand the needs of an individual client and to satisfy them by constructing a particular building on a particular site. But when a development group builds. as Mr Walters rightly says it should, it must do exactly the same. The difference is that, in doing so, it must also take account of long-term trends. All development work to be valuable must be, to some extent, anticipatory; and without a lively forward-looking user representative, as well as a lively administrator, architects, however imaginative they may be, will not get anywhere.

Mr D. E. E. Gibson, CBE [F]: It depends really on what is meant by development work. If I could carry Mrs Layton's comments a little further by examples, I believe if you are talking about development work in building techniques - a thing like CLASP - then that involves a tremendous effort in terms of time and staff, and it is obviously the sort of thing that can be undertaken only in this context. I remember, at Nottingham, we put a whole year's programme outside the office, to leave the whole of a department free to spend a year doing this particular task, which was purely building technique. At the same time, quite another type of development work was going on, which was thinking about the use of buildings. That is a thing that does not need a large organisation One would like to feel, as a result of this evening's considerations, that people would think that this idea of 'thinking before you do' is really applicable to most offices. in fact, very often to one large job. Again an example: in Nottinghamshire, one

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accepted the work that the Ministry of Education had done and published in bulletins on what child and teacher do each hour of the day. For various reasons we wanted to look again at some of these problems, and, with one or two individual architects, we were able to team up with the user - in other words, with the Director of Education and one or two of his best teachers in secondary and primary schools and to go with them very fully into how they used their buildings. One project which emerged, which was examined by two people only, was the question of the physical education requirement of the school. The PT instructor was asked how the gym. worked and the reply was that it was too small. 'Why is it too small?' The answer was 'Because only half the class can be going up the ropes and wall bars at the same time, so I have to have the others running around to keep them warm, and those running around get in the way of the others. So we need more space'. You found in the end that if you could build an open-air space, with a roof over to keep the rain off, and wind shields to keep the wind from driving the rain in, you could, within the same cost, build something twice as big as a formal gym. The end project was to build two gyms. for the same money as the old one: one small one, but big enough to take all the equipment, and the other big enough to have tennis, sandpits, etc. This emerged simply by two people being entirely free to make a thorough investigation of the user needs, and that sort of development work ought to go on, if it has not gone on before, in most offices. This should not take a lot of time, but if you can get this attitude of mind into a department or office, I am quite sure that you can get this sort of thinking on every venture.

Mr R. G. Page, MP: On the question of the small authority and, in particular, on remark made by Mr Johnson-Marshall that the government should give a lead, may I speak from experience of the north of Merseyside, where there is a number of small authorities starved of the experience to advise them on development work; and therefore, development, such as usage of development groups, is not being carried out in any way. I have advocated for two or three years now an idea which I would like to throw out tonight, of a sort of peripatetic development group for a group of smaller authorities such as are grouped together on the north of Merseyside. Mr Johnson-Marshall emarked that the government should give lead. I would like to see these peripatetic development groups financed and supported by one of the ministries. One might aggest the Ministry of Housing, but I think perhaps the Ministry of Works is more appropriate as being the Ministry really concerned with amenities, or which should be concerned with amenities. So I hrow out for what it is worth that idea of the peripatetic development group supported by the central government for ocal authorities which cannot manage the sort of scheme referred to in the paper, on their own.

Mr D. G. Lewis (Member of the Institution of Heating and Ventilating Engineers): I would like to support the previous speaker but one who stressed the user as being an

additional member of the team, along with the administrator, architect and quantity surveyor. But if it is not possible, on some projects, then the next best thing is for the leader to gain some first-hand experience of a user or daily occupier of a building. As an example, take the hospital: the requirements for a general ward are totally different from the user's point of view, to the casualty, to the out-patients, to the recovery ward and the operating theatre suite. It is not possible, unless one has actual experience of either being a patient in a hospital or having close association with the work of the hospital, to achieve best results without having a user on the team.

Another thing which I would like to see added to what has been mentioned in the paper is the study of maintenance. Maintenance is a recurring expense. A lot of money overall can be saved by spending a little more on the building in order to reduce maintenance costs. For example: at a large office building at Millbank, there was a study group, as we called it in those days, which is a forerunner in kind of what we are discussing tonight. As a result of the meetings where long-term costs were studied a considerable sum has been saved on maintenance and decorations.

Then there are certain buildings for which another member of the team should be a specialist; for example, if there are a lot of engineering services involved, an engineer specialist in those services should be a full member of the team: not in all cases, but depending on the nature of the building.

Generally, I think an architect should be the leader of the team, but I can visualise and have had experience of other buildings and other projects where another type of professional man seemed to do better than the architect. I will mention three of which I have had some experience. The first is a water-testing laboratory and the director of the previous laboratory was the leader of the study group. It was not very successful. Another experience was at a medical research laboratory. The group was under the chairmanship of Sir Henry Dale, who was a very outstanding man; and almost every room in every part of the building was discussed in detail. In that group were the heads of the various departments, the maintenance engineer of the pilot building at Hampstead, the eminent architect; specialist engineers but no quantity surveyor. That worked successfully. Another experience was a laboratory for industrial research. The architect was the leader of that study group but, I think due to the fact that he was without former experience of industrial laboratories, progress was slow. On comparison, therefore, you have a director as leader of the first laboratory where progress was slow, and in the third case, you have an architect where progress also was slow, while in the second case where things went very well, the leader for the planning studies was the director. These are fragmentary examples, but I think the essential consideration is that the best man fitted for the particular application should be the leader of the team.

Mr Henry T. Swain [4]: I would like to refer to the point Mr Page has made, which also stems from the point made earlier by Ken Evans; the question of the smaller authority carrying out its own development work.

I would like to suggest that every authority should carry out its own development work. My criticism of the paper that Roger Walters has written is that it gives a nice comfortable feeling: development work can be left to the government departments and we can carry on botching, from one job to the next, without ever sitting back and thinking how we are going to build. To a certain extent, I am inclined to criticise Mr Page also because I think that the smaller authorities in the north ought to get together and initiate their own development work.

I think that the government development policy should be to have big central development groups such as Roger Walters described, on which every other development group may lean. But I do not think that relieves any of us who are in a public authority, or working on any other continuous programme of building, from the responsibility of forming and organising our own development groups. It might almost be said that we cannot afford not to have development groups. I think it could be argued that we are wasting our client's money unless we are thinking about tomorrow's crop instead of eating the seed corn. If architects like to make this point, they will have the support, in my opinion, of most hardheaded committees, businessmen and public authority administrators. My arithmetic is rather crude but it goes roughly like this: if you take an authority with a million pound programme, or any other unit, building a million pounds' worth of buildings – regional hospital boards, industrial concerns, etc. - it would seem quite reasonable business to set aside one per cent per year of the capital programme for the year after. I do not think that this is a particularly revolutionary idea, and I am sure it is normal in progressive industry. If one converts that one per cent into figures, it comes to £10,000, which is quite a handy sum to finance a development group with. Assuming 50 per cent, for overheads, it enables you to appoint one architect at £2,000 a year and two at £1,500 a year. That is a nice little team with which you can probably shift a lot of work. So I think we ought to aim at about 50 units like this, working in collaboration with central government development groups. In time it might end the situation where we are always rushing from one staff emergency to the next, never having time to sit down and think how to build in better ways.

The development groups I describe will save their own salaries in terms of actual cost over and over again. May be they will not every year; but over a given period, they will increase the value of building to the client more than one per cent per year. If there is one thing I am certain about, it is that.

Mr J. A. C. Robertson, CB, Under-Secretary, HM Treasury: I do not know if I am really the right person to take up that point especially as the Ministry of Works is probably represented as well. It is an interesting one. It occurred to me, looking at the present distribution of these excellent development groups, that it really is a little bit maldistributed as between central government and local government and the private sector which, of course, does just as much, or more, investment and building

work as the other ones described here; of course, it is development work, I have no doubt, but the problem is perhaps on a different scale. But it would be interesting to know, since we read in the paper about communication, what sort of communication there is over into the private sector.

I am glad there has been so much emphasis this evening on the opportunity for local authorities because I would have thought that it is an area where more could be done, with regard to recurrent types of building anyway, of which there are quite a good many, when you come to think of it.

The kind of things that I am thinking of, though I am a couple of years out-of-date, are fire stations and perhaps police stations, not to mention smaller capital work, including the possibility of applying the principles of development work to maintenance work.

With regard to the peripatetic idea. It is a good idea. It fits in with the idea of recurring; but if it means moving around the whole time, covering a lot of ground, it jars against the other idea that it takes a long time before you can, if I have understood the argument right, get enough technique to be able to do useful development; but perhaps you get the technique in carrying it peripatetically along with you. I think you do, as a matter of fact, but on the point about machinery of government, I think that this would chime in exactly with the present position of the Ministry of Works in relation to local government activities. It is just the way things have been set up, in other fields besides building and development. There is no reason why one should not have the Ministry of Works, which already does Allied Services - and Allied Services is the one where you do not get your money back and Repayment Services, for a lot of government departments; it is already perhaps the most versatile government department, and that no doubt was the point Mr Page had in mind.

A good thing in the paper was the emphasis on time scale. I might say something about that; I do not think it has been over-emphasised in the discussion. I drew the conclusion from these remarks that you have to have a fairly long time-table; you have to have a fairly clear picture, a fairly definite picture, of the kind of demand you are going to have for these buildings over a period of time ahead. Otherwise, investment in the development group, anyway as formerly described, would tend to be, I would not say 'extravagant', but a little difficult to put across to people like treasurers, and Treasuries, too. But I do not think I need draw the conclusion there that it is hopeless and no use.

On the user point, I would have thought that I would not have too much difficulty myself about the user. I would not expect always to be able to incorporate a user in the design or development team, although I see no harm in incorporating him provided he thinks on broad enough lines and adopts the vernacular of his colleagues and does not always go on emphasising his usership. But I should have thought the practical thing is to get hold of the representative of the user. In two cases not mentioned in the paper, where we have a joint development group, the Ministry of Works provided the corps, the Post Office working with them to find out how that bit

of post office building should be worked. That is a case of the user being represented in the joint development group. In another one which I had some slight part in setting up two or three years ago, where we did not have the user because we were setting up a joint development group on prisons, the same principle applied. I was speaking to the Prison Commissioner the other day, and he said that that group was going very well, with the help of the Ministry of Works.

Mr A. W. Cleeve Barr [F], Chief Architect, Ministry of Housing and Local Government: I would like to say a word on the theme of peripatetic groups and small authorities. On the whole I think they are not a very good idea; and this is the sort of thing that does not require centralisation in Whitehall.

Henry Swain has given one answer – the consortium of local authorities. There is another, which has not been mentioned, and that is utilising the services of the county authority. Most county authorities ought to be large enough to maintain development groups (not ten strong, but perhaps two or three chaps strong), and to help the smaller district authorities. This is now happening I understand in both Buckinghamshire and Lancashire.

Commenting on another aspect of the whole subject, Henry Swain mentioned the need for 50 development groups. Where are we to get the architects from for 50 full-scale development groups? Long-term, I think he is right. I am quite sure that in ten years' time, the country will be covered with consortia of the CLASP type, but at the moment, we are in a very preliminary stage.

I think that, within our own profession, we have to do a great deal of rethinking on our attitude towards design. Development work is significant to me (and I have been a member of four development groups in various authorities over the past ten years) not only as a means of achieving economy in building or even of achieving value for money, but because it represents an approach to design which recognises that, in modern society, the role of the architect and his relationship with his client is completely different from what it was in the last century.

Mr Robertson mentioned the 'client' as opposed to the 'user'. It seems to me that, in the majority of building in the future, although the architect must work closely with the 'client' (or that part of the 'client') who pays for the building, and who is entitled to value for money on his investment, the user is likely to be the more important team-mate. One cannot create good architecture without the fullest understanding of, and sympathy with, the functions and activities for which the building is being designed.

Again, Mr Evans doubted that architecture was a 'consumable product' – but surely it is just that. More and more we are being asked to design for flexibility, for limited life, for variable functions and for the unknown. Our approach to design as a profession is utterly out of date, and we should learn from the techniques of designers of underground trains, buses and industrial equipment. I regard development groups as being the spearhead of a new movement in architectural design.

Mr D. Medd [A], Principal Architect,

Ministry of Education: One strong belief of those of us who work in development groups is that you cannot design a building sensibly unless it is a combined effort by those who pay for it, those who use it, those who design it, those who make it and those who create the climate for the whole operation — in other words the administrator.

I want to make two points. The first is to underline and extend the point Oddie made about the user. Openously, we have to consult the user and have his representative in our team, but I do not think that it is as simple as that. I think that the emphasis in development groups should be to work with the thinker, the person who sees future trends. Unless we do this it is inevitable that our designs will be our of date before they are built. Therefore, one of the responsibilities of development groups is to select projects which are solving problems that are coming to people rather than problems that have been largely or partly solved in the field in the past. The selection of the project must be made as a means of solving future problems rather than today's or yesterday's. That is the reason I underline the necessity for collaboration with thinkers rather than merely users. The wide gap, perhaps of 30 years that exists between practice and though in so many fields makes the forward look more important than past experience because buildings are designed for use in the future not the present or the past.

The second point I want to make is one that has not been touched on enough and which I also believe to be important: that is, how we collaborate with those who make buildings, whether they be builders or industry. I believe quite strongly that the most unsatisfactory aspect of modern design is the lack of identity between designer and maker. This is something development groups have got to do something about.

Mr Johnson-Marshall said earlier that administrative procedures, or tendering procedures, are usually a barrier at present to the effective working between architect and industry and architect and builder. Whether you are designing steel frames, concrete frames, furniture, equipment, ironmongery, windows, I believe it is essential to work with the people who are actually making the stuff. Therefore, I see not only tendering procedures, as they are commonly accepted, as a barrier, but I also see the consultant - the independent consultant - as a barrier between the architect and the maker. I think that one of the tasks that a development group has got to do is to sort that problem out: how is the architect to absorb technical knowledge which he does not command himself? has got to be found in industry, not in an independent professional's office down the street. I do not think that aspect has been mentioned adequately in Mr Walters's paper: otherwise, I think his paper is very good exposition of the subject.

Mr F. H. Crossley [F] (County Architect. Derbyshire): For the sake of adding to the discussion, I would like to ask if the view is that development groups do, in fact. produce good architecture? I cannot imagine Wren referring to a development group, or Frank Lloyd Wright or Nexu. either. I feel that really good architecture.

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springs from one mind alone. I am proud to be a member of the consortium of CLASP and I feel that that is excellent for what it is trying to do, but nevertheless, I am left a little doubtful whether it is real architecture.

Mr W. A. Allen [4]: I thought that several speakers would touch upon a point which seems to me cardinal to the idea of development and which Mr Walters himself has not, I think, adequately developed. Mr Oddie was the first person to come near it when he raised the question of the user. It seems to me that nobody has considered the nature of the term 'development' in the sense in which a person concerned with operational research would consider it; that is to say, the idea that you have a representative of the user in the team for the purpose of going back and studying what you have done to see whether your original hypothesis was a sound one or not. This has been lacking in some of the development work which has been done to date. Some operational study is done rather inadvertently or in an unsystematic way; it is picked up as a kind of general knowhow as you go along. But the idea of development surely implies not merely one gesture but a succession of events in which you move towards a continual improvement of your ideas; perhaps one would keep that process up for quite a time: perhaps you would merely carry it on to the point where you have exhausted the advantage of it for the moment.

Some development groups have done this sort of thing quite well. The LCC had a group looking at tenants' reactions to the kind of buildings they were presented with. This seemed to me to be excellent. But it has not become a systematic mechanism of any development group, and Mr Walters does not include it as one of his cardinal elements; I would have

done so.

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Mr Robertson touched on the private architect and asked where he comes into the picture. This is a very important thing. I think everyone assumes that public authority spending departments will generally not be built to carry their peak loads but only their average loads, and the private sector of the profession will carry the remainder. What is very important then is publication to ensure that private architects are as well informed as necessary. The Ministry of Education originally set an admirable example which became a sort of 'bible' of school building. I use the term 'bible' advisedly, in the sense that it was in inspiration as well as a communication. What I have not yet seen in any prominent degree from any of the other development groups is publication. I do not know whether the War Office proposes to do any; I have no doubt that the Ministry of Housing intends to develop it. The Ministry of Health has made a start. I do not think the LCC did any systematic publication, although they contributed a number of valuable papers to symposia. How are we to get this material on record and across to the profession as a whole? There is little point in everyone doing the same job over and over again, and to avoid that you have to have communication and publication. It seems to me that this is true even of the local authority people. Anyone who has got the privileged position - and It is a privileged position - of being able to carry out a study properly, has a kind of moral responsibility to let other people know about it.

Mr A. Pott [A], Chief Architect, Ministry of Education: I should like to return to the point on peripatetic development groups as a help to the small authority. At first hearing, I do not see how that could be worked. I support Henry Swain in his contention that every office, however small, should be doing some modest development work. However, this ignores the fact that some smaller authorities have difficulty in recruiting enough staff to do their normal

This leads me to suggest that, in a controlling department such as that in which I work, it is important to have something else besides a development group. We have architects, each of whom has pastoral charge of a group of authorities. These architects are an admirable channel for communication between local authorities and the Ministry, and it is possible by this means to let them know what has been done in other authorities' groups and in our own development group.

I think it is also extremely important for another reason in a controlling department - and by that I mean a department that has not got a large building programme of its own - to have architects whose main function is to keep in touch with the local authorities. Not only because we may be able to help them in some ways but because it is an admirable way in which to keep in touch with the current problems of the authorities; and much of the value of the development work at the Ministry comes from the fact that we have these chaps coming back and saying for example, that they are finding the provision of kitchens of this size for this money quite impossible. This, of course, is where we have to find either planning and technical solutions to help them or, alternatively, we have to persuade our administrative colleagues. and through them the Treasury, that, in fact, they have got to be given another £5 per kitchen.

The question of timing has been mentioned. It has been made quite clear that to do a thorough 'development' job, you have to take much longer than to do a normal job, but I think it is important for development groups to have their projects tied to a given programme and a given date; they must have to get the building finished by a given time. Otherwise they tend to be the kind of chaps who go on seeking perfection and never find it.

On Mr Allen's point about continuity and returning to the scene of your crimes. I think he used the words 'a succession of events': that is enormously important. That is why I am sure the most fruitful development work comes from the groups which are connected with a production machine; which are not acting in isolation and merely passing out the results to other people to use or not to use as they like.

The President: A number of Roger Walters's points have been canvassed. The question of the peripatetic group was raised by Mr Page; very useful distinctions were made between the user, as a patient or even, in Mr Robertson's words, as a prisoner; the user as the intelligent mind, taking evidence on the way in which the building is used

and therefore a member of the group. We have had some difficulties referred to competitive tendering and many others. We have learned something: we have learned about the Post Office group and the Prison group. May I refer also to an old one that no one has referred to, the old London Passenger Transport Board where one had an administrator in Frank Pick and an architect in Charles Holden, who did an astonishing amount of develop-

Finally, we have had a question from Mr Crossley which I would like to answer from the Chair, in saying that development groups obviously do not prevent good architecture, or the lone genius from doing what he did before, but they attempt to make more efficient a very large area of architectural work which, at the moment, is certainly not efficient, interesting though it may be.

#### Written Contribution

Mr Oliver Cox [A]: Development work, as we have heard can very well be carried out within a local authority as well as within the high powered Central Government development group whose organisation Roger Walters somewhat exclusively examines. His definition of the purpose of a development group - the achievement of better design and better value for money although unexceptionable is too brief and I think has led us into some confusion in discussion.

As I understand it, the purpose of development work is the integration in creative design of a thorough study and reappraisal of the users needs and the possible means of answering those needs (including amongst other things costs, materials and building operations). The time which is spent on this study and the calibre of the thinking involved (in which many specialists other than members of the group are likely to be drawn in) are the things which distinguish this work from normal production work.

If this is accepted then the difference between a well considered production job and a development job with severely limited objectives (or too tight a time-table) are slight indeed - and experience proves

this to be the case.

In the context of a continuing programme of buildings designed to answer similar needs it is possible for the development group to build up a continuum of experience, experiment and study (including that of the building in occupation). This dimension of development work is often present, though not perhaps fully exploited by local authorities without development groups but with large capital investment programmes.

Within the local authority or spending

department the development group is faced with the additional risk of degenerating into nothing more than a collector and disseminator of information. That this is an important part of its role in this context is not denied but it should always be subsidiary to the creative role. A way of meeting this problem is illustrated at the LCC where, in addition to the development group referred to in the paper, there is a separate (and considerably larger) Materials and Information Section with its own senior architect in charge but under the direction of the head of the Development Section.

#### **RIBA Finances**

Accounts for 1960 in Relation to Mortgage on Building and Allocation of Surplus

#### Surplus of Income over Expenditure 1960

The provisional estimates for 1960, published in the Annual Report for 1959, showed an anticipated surplus of £13,000. It became clear by January 1961 that the surplus would in fact be considerably greater, and the Council at that time deferred consideration on how this sum could best be deployed until March, when final figures would be accurately known.

On completion of the year's accounts the Finance Committee reported to the Council that the absolute total for disposal was in fact £29,846, made up as follows:

Capital Shown on Balance Sheet	£	£
Probationers' enrolment fees	12,707	
Entrance fees	4,566	
Transfer from Journal Account	2,633	
	19,906	19,906
Current Income and Expenditure Account		
Surplus on Year	9,940	9,940
Total		29.846

This comes about primarily because receipts from entrance and probationers' enrolment fees were some £6,000 above the original estimate, and income from other items was about £2,000 above estimate.

A reserved sum of nearly £3,000 no longer needed was brought back into account, and expenditure under various heads had fallen short of the estimate by some £5,500.

#### Committee Requests for once-for-all Grants

In January, the Council agreed that in considering how the year's surplus could best be deployed, the Finance Committee ought to have before them any requests for the financing of once-for-all projects as there was evidence that committees, through not being fully conversant with established procedures, might have missed opportunities to make claims.

The Finance Committee examined all projects put forward and, with one minor omission to be financed as required out of current expenditure in 1961, endorsed the recommendations for expenditure totalling £10,340.

Other commitments which the Council bore in mind at their March meeting were (a) the undertaking to provide £3,000 in 1961 (as also in 1962) for the Technical Information Service, (b) the need to underwrite any loss on the IUA Congress: the maximum figure being provisionally put at £4,000.

#### Allocation of Surplus and Repayment of Mortgage

To meet these, and similar demands in the future, the surplus could be invested and income from it used. In this connection the Council kept in mind the outstanding mortgage of £42,000 on the building, the interest on which is  $5\frac{1}{2}$  per cent. Clearly it would be uneconomic to owe £42,000 paying  $5\frac{1}{2}$  per cent interest, and simultaneously to retain invested another large sum on which the maximum interest obtainable would be 5 per cent. By paying off the entire mortgage at the earliest possible date (June 1961) not only would there be a substantial saving of interest (£2,238 in 1961) amounting over the currency of the mortgage under the present terms to some £14,000, but also the Institute would be relieved of capital repayments during the rest of the year and in the future, thus relieving the burden on the current expenditure account.

On the other hand, if the whole £42,000 were to be repaid and the additional demands outlined above met, with only about £30,000 to do it, clearly at some point a further debt must be contracted. This, however, need be for only a few months as for most of the year the cash position is favourable. This is because the bulk of membership subscriptions is received in January and expenditure does not catch up until towards the end of the year. The Council was advised in

March of a cash surplus on these grounds amounting to £45,000.

It was therefore estimated that if the entire mortgage were paid off it might become necessary to borrow up to perhaps £20,000, but only for the last two or three months of the year. The interest for this period would be much less than that paid if the mortgage were to continue.

With these conditions in mind the Council decided to give notice of repayment of the balance of the mortgage on 17 June 1961; to approve the expenditure proposed subject to requirements in detail; and to approve of obtaining later on such short-term loans as might be necessary to make this action possible.

#### SUBSCRIPTIONS TO OTHER BODIES 1961

1. In considering the various subscriptions made to other bodies at their meeting in April 1960, the Council asked the Finance and House Committee to review the list fully and, if possible, to draw a distinction between what might be described as grants in aid and annual subscriptions for routine liaison purposes.

2. In approving the estimates for 1961, the Council at their meeting in December 1960 gave approval to a total figure of £1,805 to cover the various subscriptions.

3. The bulk of this total is made up by subscriptions to the following 12 bodies which may be regarded really as grants in aid:

Architectural Association Lantern Slide Collection The Institute has no collection of its own and	£	S.	d
subscribes to the AA to provide service	300	0	-
Architects' Benevolent Society		U	-
In addition, the Institute provides free accommo-			
dation, light, heat, postage and services	150	0	(
British School at Rome			
All Rome scholarships except architecture are			
financed from the 1851 Exhibition surplus or			
government grants	750	0	-
British School of Archaeology at Athens			
School acts as liaison centre for visiting architects	50	0	1
Council for the Preservation of Rural England			
Specially approved by Council in 1960 for Panel			
Work	300	0	-
Student's Visit to Rome			
Students' visits to Rome from provincial centres			
are financed by Allied Societies. The RIBA finances			
the visit of a student from one London school in	60	0	
rotation	50 10	-	
Association for the Preservation of Rural Scotland	10	-	
Council for the Preservation of Rural Wales Ulster Society for the Preservation of the Country-	10	10	
side	5	5	
National Trust	25		
National Trust for Scotland		5	
RIBA Cricket Club	10	-	
MID/I CHINCI CIND	10		
Total	£1 667	0	

4. The balance is distributed chiefly in the form of annual subscriptions which entitle the Institute to representation on the body thus providing liaison and also in many cases provide for reports and literature to reach the RIBA Library. They are:

British Standards Institution		31	10	0
Great Britain-USSR Association		3	0	0
Housing Centre Trust		5	5	0
International Council for Building Research (CIB)		25	0	0
International Art Collection Fund		3	3	0
National Inspection Council for Electrical Instal-				
lation Contracting		10	10	0
Parliamentary and Scientific Committee		26	5	0
Organisations of which the Secretary or Chief Clerk				
are members for administrative purposes		33	12	0
	_			-
Total	£	138	5	0
	-			-
Grand Total	£1	,805	5	0

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The Editor

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#### Correspondence

The Editor, RIBA JOURNAL

RIBA Sailing Club

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Dear Sir, - Raity, Mr Toad and Otter, that watery triumvirate of The Wind in the Willows, were not alone in understanding the beguiling pleasures of 'messing about in boats'. Mole, too, their land-lubber, earthbound, friend, shared their joys and tribulations.

So also are land architects, equally with their naval counterparts, boat-owners, boatcharterers and boat-borrowers - in short,

sailing enthusiasts.

Has not the moment arrived when members of the RIBA should give expression to this enthusiasm and form their own sailing club - with or without their own boats; ranging from Ocean Racer to Cadet and Motor Cruiser to outboard propelled dinghy? - mariners all!

Already many members who have been personally approached have welcomed this idea and we suggest that all those who are interested should write to 'Sailing', c/o RIBA, 66 Portland Place, London, W1.

If there is sufficient support members will be notified without delay of a meeting which will be convened with a view to organising such a sailing association.

Yours faithfully, E. F. TEW [F] G. H. LAWRENCE [A]

President, Wessex Federal Society of Architects

President, Edinburgh Architectural

Association

#### New RIBA Standard Signboards

Dear Sir. - The RIBA standard signboards are the best thing that we have done in our own interests within living memory, not excepting the Registration Act.

The change to a new design of board was not, however, such a good idea. For one thing the emphasis has shifted from the word 'Architect' to the practitioner's name. The great virtue of the original board was the way it brought the profession and its activities repeatedly before the public eye, rather than individuals.

But the greater mistake was to change at all, just when the boards were beginning to make an impact upon the public. Now some of that cumulative impact is bound to be lost as we change our boards gradually from old to new.

This letter is not a plea for yet another change. On the contrary, let us leave well alone and get on with something else. I have got myself some new boards, though like the old one better, and I hope to be allowed to use them for many years.

> Yours faithfully, M. HARTLAND THOMAS [F]

Dear Sir, - On page 86 of the January edition of the JOURNAL we are presented with the prototype of the new RIBA standard signboard. Whilst sympathising with the 'glamour-boys' of the profession who design the multi-storey skyscrapers in the cities, it does seem particularly unfortunate that after only a comparatively short time the old design should have become redundant. The general public are remarkably slow in identifying signboards, and I would suggest that they are only just beginning to recognise the old design.

The general appearance of the new board is quite pleasant, but I am of the opinion that the typography and the badge design are not suited to the professional status implied. Furthermore, I can scarcely believe that the example illustrated represents the intentional setting-out of the lettering on the board, regarding the spacing of the individual words, which in this case seems quite appalling!

I have always thought that the old design was a pleasant one, and that the Clarendon lettering used was dignified, clear and eminently suitable. Surely, at least, the same crest, type of lettering and colour scheme could have been preserved in order to establish a vestige of continuity in the design. What seems particularly deplorable is that we can no longer obtain the old pattern, and in the case of most rural practices, even the smaller new board (measuring 4 ft by 1 ft) is likely to dwarf the contractor's board, and will be in danger of looking extremely ostentatious.

Yours faithfully,

A. S. G. BLACKMORE [A]

#### Architectural Education

Dear Sir, - We hope that the letter from the President and Past President of BASA published in your March issue under Architectural Education', is not characteristic of Student thinking on the vital matters Mr Redfern is devoting so much time to. Much of what Mr Redfern holds expresses the anxieties of many of us with regard to the future of our profession.

The Institute survey being undertaken at the present time of offices in connection with the necessity or otherwise of the 'Technician', would seem to be being carried out for the record, the translation of a design into bricks and mortar just does not happen by itself. The recommendations of the Allied Societies Conference for this class should not be watered down but strengthened and implemented quickly, in order to clarify the position to the Technical Colleges otherwise many will be lost to the profession.

In the same issue of the JOURNAL are the appointments of the RIBA Board of Architectural Education, which indicate a far too academic approach to the duties of future architects. It is suggested that in view of the ever increasing responsibilities of an architect particularly in the administration of a contract, the majority of the members of this Board should be practising architects.

Views are being expressed at the present time regarding the desirability or otherwise of joint basic training with builders and quantity surveyors, and if the architect is to maintain the leadership our fortunes must be guided by practical and forward-looking

Yours faithfully,

W. R. HAZLEWOOD, AMTPI [4] JOHN B. TUNSTILL [A]

#### Study Group on Design of Penal Institutions

Dear Sir, - A recent notice in the JOURNAL announced the International Study Group on the design of penal and correctional institutions which is to be held at the Architectural Association during the week following the IUA Congress, from 10 to 14 July 1961.

An exhibition will be staged in conjunction with this Study Group to illustrate recently completed institutions and proposed future designs from the countries represented.

A small section of this exhibition will be devoted to designs and projects prepared unofficially by private architects and

I should be pleased to hear from any such architect or student who would like his work to be considered for inclusion in the exhibition. Drawings should not, at this stage, be sent although some indication of what type and size of drawings, photographs, and models are available would be

Yours faithfully,

LESLIE FAIRWEATHER [A] Hon. Secretary, Study Group on the Design of Penal and Correctional Institutions

#### **Practice Ouerv**

Dear Sir, - In the March issue of the JOURNAL, under Practice Notes on page 197, there is a short but interesting paragraph on the subject of tenders which come out higher than the client's stated maximum expenditure. The only ruling quoted holds to the view that the architect's design should be capable of being built for the target sum and that, if it is not, then there is no fee recoverable from the client.

Under present-day conditions, this seems to me to be severely open to question. Surely such a ruling would only be the case when the architect was given a completely free hand to design. Leaving aside the fact that the vast majority of clients require certain materials, finishes and equipment which only become apparent as the design work proceeds, the fact remains that tenders for work can well vary by as much as 50 per cent. In a recent job of ours, a very skilled and experienced quantity surveyor prepared an up-to-date estimate on his own completed Bills of Quantities at the time that the job was out to tender to half a dozen builders. The quantity surveyor's estimate was roughly £60,000 (already an increase on the sketch plan estimate) but the tenders that were received on the same Bills of Quantities varied from £82,000 to £104,000

This reflects intensive local conditions where a considerable amount of building is going on at the moment but it is very difficult to believe that an architect can be told bluntly that he would get no fees whatever as a result of such a situation. It seems to me that the conditions under which an architect would not be able to recover fees need to be laid down very carefully and must virtually give the architect a free hand from the outset, and also imply that there is no discussion on variation of materials and equipment from the word go.

Without such a background, I feel that any court case on these lines would be any court case argued very differently.

Yours faithfully,

FREDERICK HILL [F]

(The opinion of the Secretary of the Practice Committee on this point was given in a footnote to a previous letter on page 228 in the April JOURNAL.)

#### **Houses in Ancient Athens**

By Professor R. E. Wycherley

The excavation of Olynthus in the 1930s provided for the first time a complete and satisfactory picture of the residential quarters of a classical Greek city,1 of the 5th and 4th century BC; earlier work had been mainly on Hellenistic sites such as Delos and Priene. Even then it was difficult to estimate to what extent the evidence of Olynthus in northern Greece was applicable to Athens. One was curious to know what kind of houses accommodated the builders of the Parthenon and the other splendid public monuments of the age of Pericles and Pheidias. Archaeological material was scrappy and difficult to interpret; literary evidence was vague and could mislead. In the last few years more satisfactory material has come to light. Traces of houses have been found by the American excavators at several points on the fringes of the Agora; in two groups in particular the remains are substantial enough to produce coherent plans, with the aid of which one can form a fairly clear idea of the form and construction of the Athenian house.

South-westwards from the Agora, the market-place and civic centre of Athens. lies a deep trough, on the west side of the Areopagus, the Hill of Ares. Professor Rodney Young of Philadelphia carefully excavated a large part of this area, and published the results in an article which he called 'An Industrial District of Ancient Athens'.2 The site was extraordinarily complicated, with Mycenean tombs, an archaic burial ground, and from the 5th century BC to Roman imperial times. streets lined by houses and workshops. A narrow street left the Agora at the south-west corner,3 near the group of important buildings which the Athenians called collectively the Archeia or Public Offices, following the line of the Great Drain which carried off the water of this part of Athens. Crossing a broader east-towest street which led to the Peiraeus Gate, it continued to ascend the valley and after a short distance turned west up the hill-side. Its width here was about 4 m., and it was surfaced with hard-packed earth and gravel. The remains of a number of houses were found along this street; according to the archaeological evidence they were built in the 5th century BC though some were considerably modified in the fourth. In some cases there is nothing more than fragments of wall or foundation, insufficient to give a clear picture; but in several the plan is clear enough. The best specimens are the two labelled c and D, situated just at the westward turn. In the 4th century they were combined into one establishment. and perhaps D served as workshop, C mainly as residence.

Cf. RIBA JOURNAL, LIV, 3, pp. 135-7; LVI, 10, p. 439.

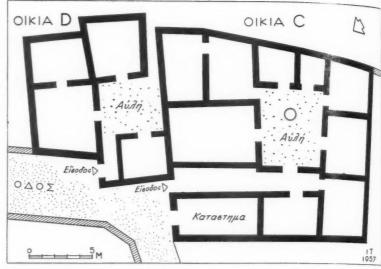


Fig. 1: Houses West of Areopagus (After Hesperia xxvii)

KEY:  $o\iota\alpha\kappa$ —house,  $av\lambda\epsilon$ —court,  $o\delta o\varsigma$ —street,  $\epsilon\iota\varsigma o\delta o\sigma$ —entrance,  $\kappa a\tau a\sigma \tau \eta\mu\alpha$ —shop

The houses were irregular in size and shape, and so were the rooms; the corners were usually not right-angles. A narrow passage led into a small courtyard, which as at Olynthus tended to be in the southern part of the house. There is no trace of colonnades of the Olynthian type, merely a single support, perhaps for a kind of workshed, in the court of D on the west side. The court of c was paved, in the later phase, with pebbles set in cement. There is little evidence for the character of individual rooms. The large rooms opening on to the north side of the courts may have been the andrones or principal dining and entertaining rooms. One of the small rooms on the east side of c had a drain and may have been a bathroom. What appears to have been a shop, opening independently on to the street, occupies the north-west corner of c; its floor level was higher and it had its own well. There are no signs of stairs in the court or of upper floors, but they may well have existed - the walls are thick and strong enough and space was precious. The stone socles which are all that is preserved no doubt carried walls of the ubiquitous unbaked brick; the roof was probably tiled.

There is plentiful evidence, in the form of chips and fragments and grinding tools, to show that some at least of the people who lived in these houses were marblecutters. The courtyard of House D was apparently used as a workshop. This may indeed be the Marble-Carvers' Street mentioned by Plutarch in a curious incident in which certain friends of Socrates, refusing to heed a warning from his 'divine sign' walked along the street and became involved with a herd of pigs. There are signs of metal-working in the quarter too, including

a leaden curse-tablet on which someone calls down a dreadful fate on the heads of certain bronze-founders who have offended

These houses have an affinity in general type with those of Olynthus. But of course they are much more irregular and informal, as one would expect from the notorious irregularity of the Athenian streets; and they have no particularly distinctive features such as the characteristically Olynthian pastas, a colonnade on the north side of the court which usually extends across nearly the whole width of the house.

The other group was fully investigated only a couple of years ago, in clearing-up operations on the south side of the Agora. The houses with their small size, irregular form and simple construction make an interesting contrast with the spacious architecture of the South Stoa, a substantial colonnade with shops or offices behind, which formed the southern edge of the Agora in the 5th century BC. A com paratively broad street, continuing the one mentioned above as leading to the Peiraeus Gate, passed along the back of the Stoa Narrow streets, about 3 m. wide, ran down the slope below the Areopagus to join it These streets too were formed by hard earth and gravel, with rough steps at some points. Under the eastern was a drain and under the western a pipe-line bringing water from sources above. Opposite the eastern was an opening in the Stoa with stairway giving easy access to the Agora.

The houses seem to have been built in

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<sup>1.</sup> CI. RIBA JOURNAL, LIV, 3, pp. 135-7, 28.

2. Hesperia, xx, pp. 135-288.

3. Just at this point, adjacent to a stone found in situ inscribed 'I am the boundary of the Agora', are the remains of a house which seems to have belonged to a cobbler, to judge by its contents, possibly the philosophical cobbler Simon who was a friend of Socrates; its courtyard had a well and a cesspool, a support for a workshed on the north and a room opening on the south. Mrs. D. B. Thompson who excavated the house gives a lively account of it in Archaeology, xiii, 4, pp. 234-40.

Hesperia, xxviii, pp. 98–103. I should like to thank Professor Homer Thompson, Mr John Trakland the American School of Classical Studies & Athens for permission to use plans and other material.

the middle of the 5th century BC, replacing archaic houses demolished by the Persians. The plan of the block is not certain in all its details; nor is it clear just how many units it comprised. But at least it can be seen that we have a number of modest houses, each with a few rooms grouped in various ways around a tiny courtyard. The unit on the north-east is the most intelligible. It is approximately square, and smaller than a standard Olynthian house (about 11 m. as against 17 m.). The courtyard is not on the south in this case; in fact the largest and most important room was on that side. A single column on one side of the court apparently supported the roof of a small porch; a similar arrangement is tentatively restored in two other houses - this is the nearest approach to a colonnade. A large room in a house on the western side seems to have had a cement floor and may have been the andron. Beddings for large jars in a room further south indicate that it was used for storage. In others terra-cotta grills and loom-weights bear witness to varied domestic activities.

The socles of the main walls are of surprisingly impressive construction, in a kind of polygonal masonry; those of the secondary walls are of rubble. The floors are mostly of hard-packed earth as usual. In the court of the north-eastern house and out in the street near the entrances to two others were stone-lined pits which almost certainly were cesspools. Sanitation in the Athens of Pericles was indeed very primitive.

Professor Homer Thompson in his report rightly points out that one need not think of this as a comparatively poor quarter (not that one has any reason to think that wealthier and poorer quarters at Athens were to any degree distinct). The situation, on the Areopagus slope overlooking the Agora, was attractive and convenient. There were worse houses at Athens than those we have been considering. One notes the small two-roomed structure to the south-east of the block in Fig. 2; there were some better and more spacious houses too, though still far from palatial, as we gather from the literary evidence. As far as one can now judge from the accumulating archaeological material, there is much truth in the words of Demosthenes (III, 25); in the great days of old, he says, the Athenians were content, even the most distinguished of them, with modest and undistinguished houses, but the beauty of their shrines and public monuments was such that no later generation could surpass them.



Fig. 2: Houses North of Areopagus (Hesperia xxviii, pl. 17)



Fig. 3: Houses North of Areopagus: Wall Socle, 5th century BC (Hesperia xxviii, pl. 206)

#### **Book Reviews**

Experiencing Architecture.

By Steen Eiler Rasmussen. 91 in. 251 pp. incl. illus. (some coloured). Chapman and Hall. 1959. £1 10s.

London: the unique city.

By Steen Eiler Rasmussen. 7 in. 249 pp. + 48 plates. Penguin Books 1960. 5s.

Professor Rasmussen's Experiencing Architecture is based on his Royal College of Art Lethaby Lectures, given at the RIBA in 1958. After some generalities on aesthetics, not all of which are convincing (the architect's work, for instance, 'should preferably be ahead of its time when planned so that it will be in keeping with the times as long as it stands', p. 12), he discusses the simple elements of good architecture: solids and cavities, scale and proportion, rhythm, texture, daylight, colour and acoustics. But this is far from a textbook: it is unpretentious, acute, idiosyncratic in taste, and beguilingly illustrated on almost every page.

Apart from a tribute to Hope Bagenal he has very little to say about this country, but he ranges widely, and not only in architecture-half a dozen pages bring us from the film of The Third Man to Gabrieli's Sonata Pian e Forte; and his stylistic analogies are often stimulating, as when the martial precision of fencing and the rigidity of the breaststroke are contrasted with the fluid swing of tennis and the asymmetrical roll of the crawl. Architecture to him is not simply a specialist subject, it is a continuing way of looking at life, as his title suggests, and one which strikes echoes from a dozen different fields. His aim is to clear away the mystique, and his jargon-free commonsense will certainly hold the attention of any layman interested in architecture, not least perhaps the intelligent sixth former.

A welcome too to the Penguin edition of Professor Rasmussen's visual and historical exploration of London, now published shorn of what its author feels to be its unsatisfactory last three chapters. Most of its plates are from the original 1934 edition, and some are showing signs of age; but at least the publishers have been over-gloomy in adding the note 'since demolished' to the picture of the Manor House, Blackheath: the building is still flourishingly there.

#### Industrial Architecture.

By James F. Munce. 12½ in. vii + 232 pp., illus. New York: F. W. Dodge Corporation. 1960, £5 11s.

Industrial Architecture by James F. Munce is admirable in concept and presentation but, unfortunately, tends to be a somewhat confusing book if it is studied (as hoped in the Foreword) by 'the industrialist, the architect, and the architectural student'. It can be criticised in that it attempts to cover too much ground, with the result that, depending upon who reads the book, some of the contents may or may not be true. In such a broad and diverse field as industry as a whole, it is impossible to generalise without being misleading in many aspects of the subject, and to cover the whole field - as Mr Munce has attempted - in one volume, there are bound to be design principles stated which, when applied as a basis of design to one type of industry, would be wholly acceptable, but when applied to another type, would be almost wholly unacceptable.

As an example, in his introduction Mr Munce states a very good case for the architect as a leader of the team. In many instances this is as it should be, particularly in the case of the small to medium sized industrialist who may not employ a staff of industrial engineers or process planners. In the case of the large industrial organisation. it will be found that the basic factory layout, or the 'fundamental planning', is decided by the industrial engineers who are experts in the manufacturing processes involved, and it is doubtful if the architect can be of much help here no matter how he studies the particular industry. He can, of course, and should, suggest alterations or rearrangements which will give better and more economical building, but he can seldom, if ever, have the last word. Even the architect who is employed on a full-time, salaried basis by an industrialist, with all his specialised knowledge of a particular industry, must accept the dictates of the industrial engineers and act as a consultant to them. This will apply, to a large extent, to the fundamental layout of the whole factory site. Having reached agreement at this stage, then the architect should lead the team of other specialists - civil, structural, heating, etc.

Despite all this, the book should be studied very carefully as it must be of great interest to all who have anything to do with industrial building.

The chapter on the history of the factory is a comprehensive and well-illustrated review and should greatly interest the student and the practising architect.

In his chapters on post-war factories in Britain, America and Germany, some of Mr Munce's statements will be challenged by industrial architects. An example is the 'provision of spacious lavatories'. 'spread' of some factories is such that in many cases a number of smaller lavatory units are planned to reduce the distance to be travelled to reach them. Central locker rooms are provided so that employees visit them only at starting and leaving times.

An omission is the increasing use of the 'squeeze-clamp' truck in place of the forklift truck. This eliminates the use of pallets and dictates to a large extent the height of storage areas, the height being dependent upon the strength of the case of a packed product.

In the section on the design of post-war American factories it is said that singlestorey factories are almost universally accepted because horizontal transport has been more highly developed than vertical. This is arguable as many American architects will say that it is because single-storey buildings are more economical to build and because there is no restriction on the use of land. Horizontal transport has been developed because of this. About a year or so ago an American architectural magazine contained an article on the concern planners felt about domestic and industrial sprawl, saying that the time had come when consideration would have to be given to placing restrictions on land usage. This will inevitably cause American designers to develop vertical transport to the extent that they have developed horizontal.

It is, perhaps, a little unfair to state that 'American factory floors are apparently the subject of little research work'. Some acknowledgement is surely due to the American Concrete Institute, the Us Corps

of Engineers the Reinforced Concrete Research Council and the State Technological Institutes (particularly MIT) for the rather considerable research work which has been and is being carried out by them

A point which would have been worth mentioning in this chapter is that the current practice of using more and more mechanical handling is eliminating, among other things, the loading dock.

In Chapter 6, Mr Munce would have done good service to the industry of this country in stressing as strongly as he could the necessity for architectural control of Industrial Estates by citing Trafford Park as an example of how not to develop. There has, obviously, on this Estate, been too much building carried out as quickly and cheaply as possible with no provision for amenities for landscaping. The result is that, except for a few notable recent examples, the whole estate is an industrial

All of the chapters on services will be of great value to the student of industrial buildings.

One could continue criticising, arguing and discussing the contents of this book and, if it does no more than simulate discussion, it has served a very useful purpose. It does, however, do much more than this, it provides a valuable addition to a meagre bibliography on Industrial Architecture if read with discrimination, and for this reason all industrialists and architects should be grateful to Mr Munce.

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#### Foundations and Soil Properties.

By R. Hammond. 83 in. vii + 181 pp., illus. Macdonald and Co. 1961. £1 10s.

This book, the publishers claim, will interest all engaged in building, including, it would seem, architects wanting to understand the principles of foundation design. But a glance at the contents list shows that it is not very likely to do so. The preface, perhaps, gives a more accurate idea of the book's scope, which is primarily to review 'some of the many processes now available to engineers for strengthening ground'.

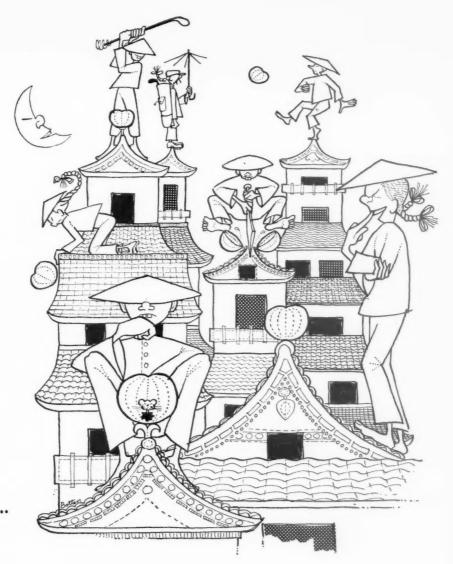
The fact is, Mr Hammond's work is not a text book for architects. To start by saying the best solution of a foundation problem is generally the cheapest, and then, in the final chapter on selecting the best process, to make no reference to economics or costs does not inspire much confidence; nor does a statement like 'a very useful Table of Laboratory Tests indicates in compact form the best methods to be adopted . . . ' without providing the table. G. A. ATKINSON [A]

#### Electricity in Building.

Ed. by Trevor Dannatt. 97 in. 102 pp., illus. Paul Elek. 1960, 10s. 6d.

The Architects' Yearbook, volume 9, contains a valuable section on Electricity in Building, which has now most wisely been published separately. It contains authoritative articles, which are fully illustrated, on the distribution and control of electricity; wiring systems, conduits and ducts; space heating and space heaters, lighting for work, lifts, telephone systems, and a note on the activities of the EDA (British Electrical Development Association). There is also a glossary of electrical terms and symbols.

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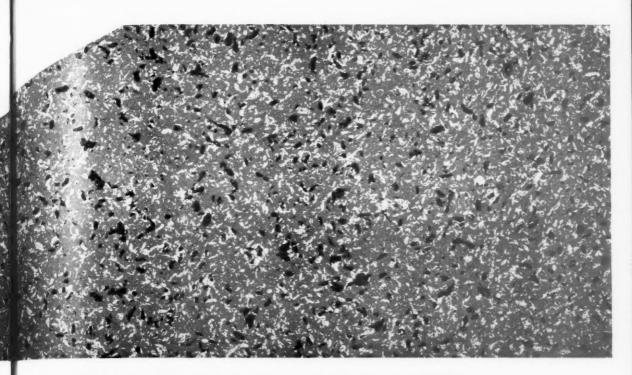
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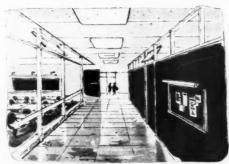
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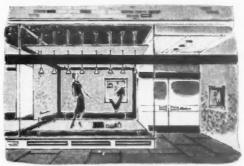
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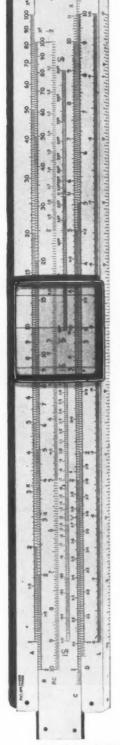


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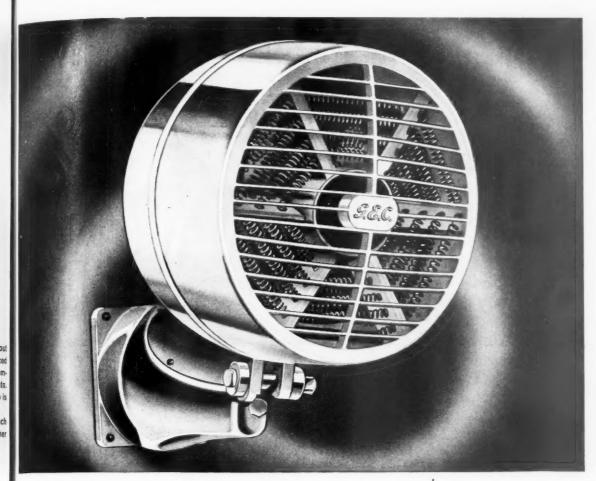


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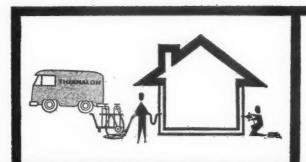
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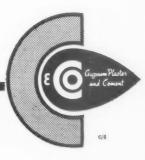
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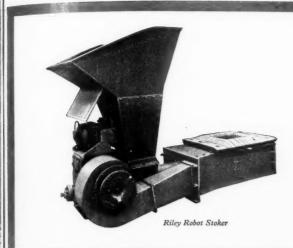
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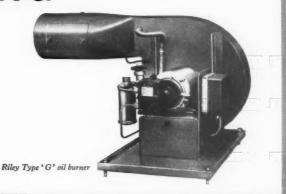
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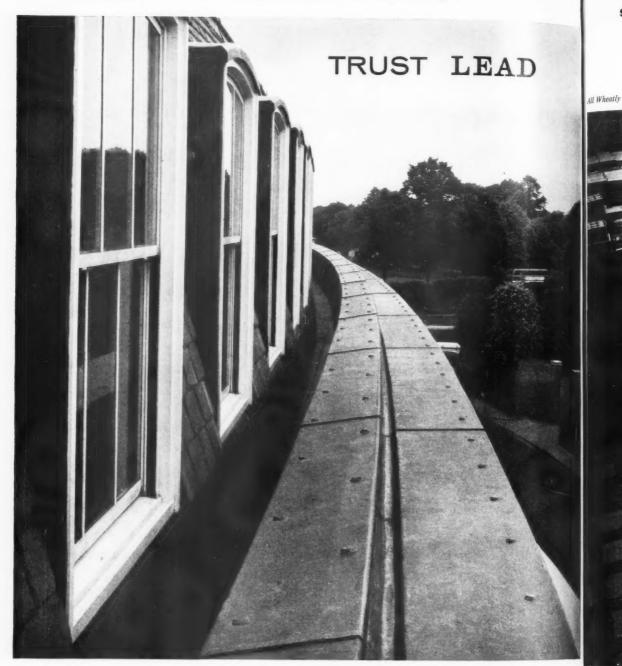


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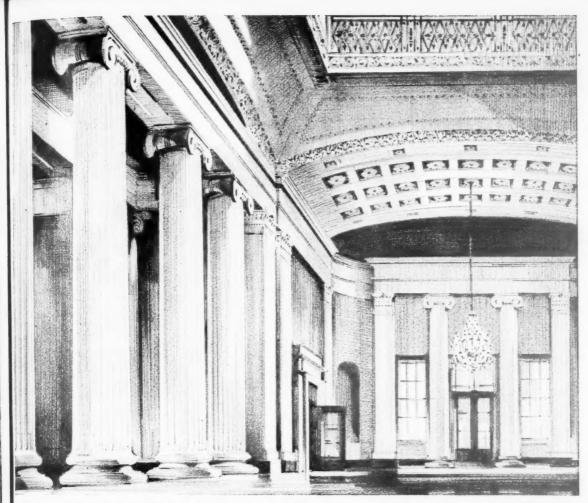


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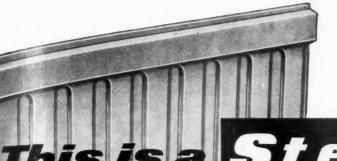
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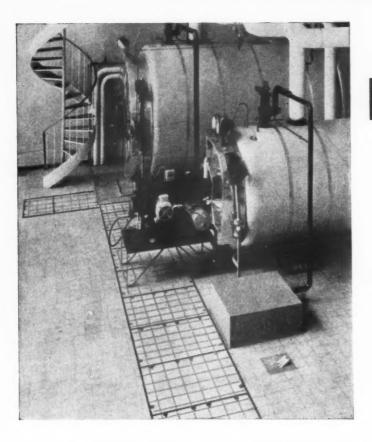




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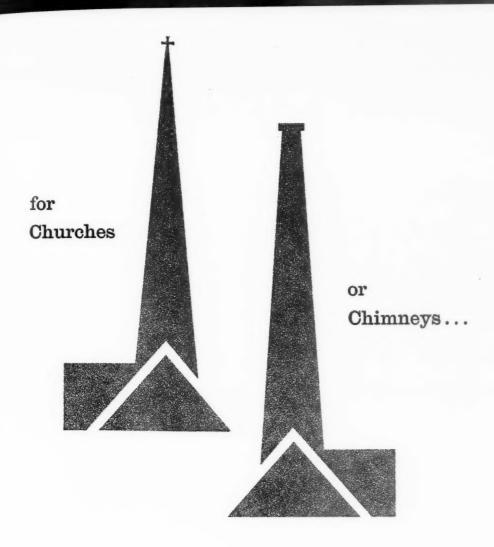
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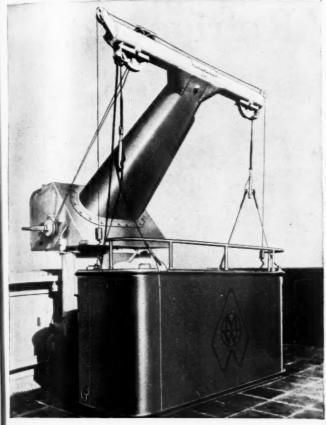
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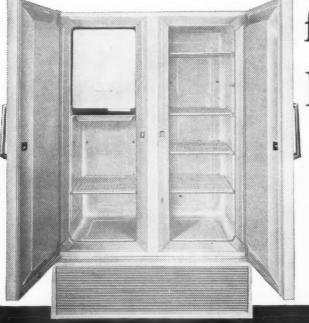


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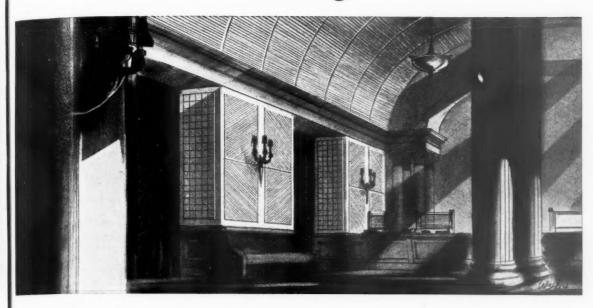
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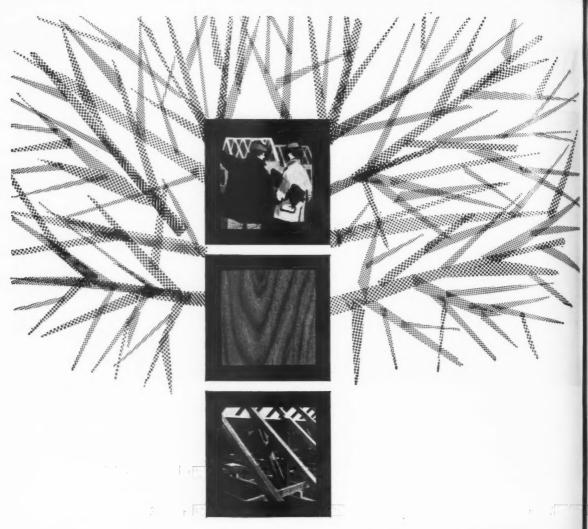
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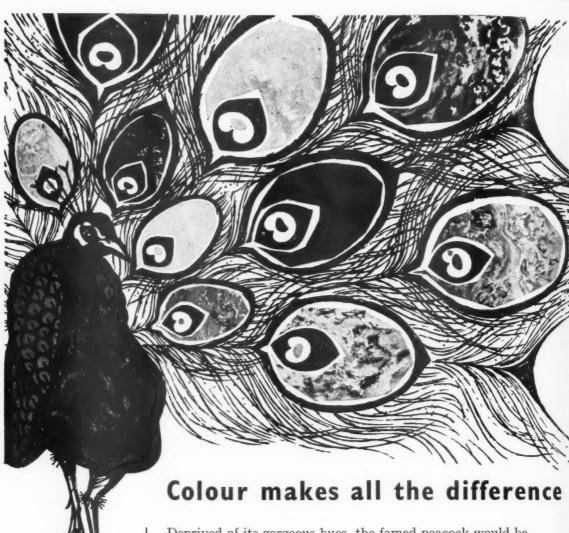


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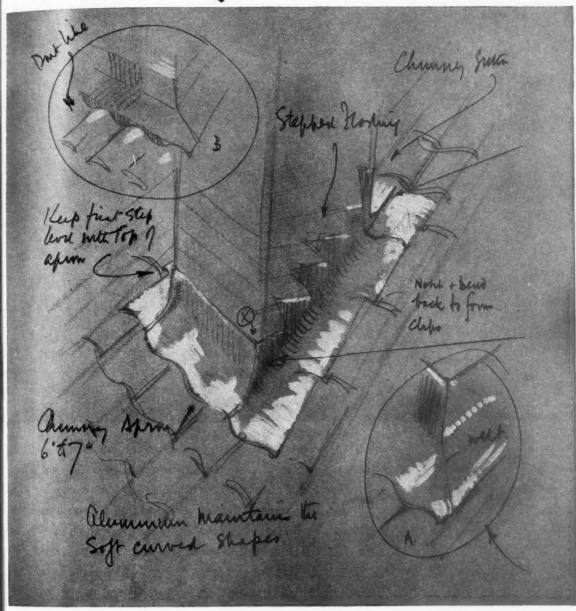
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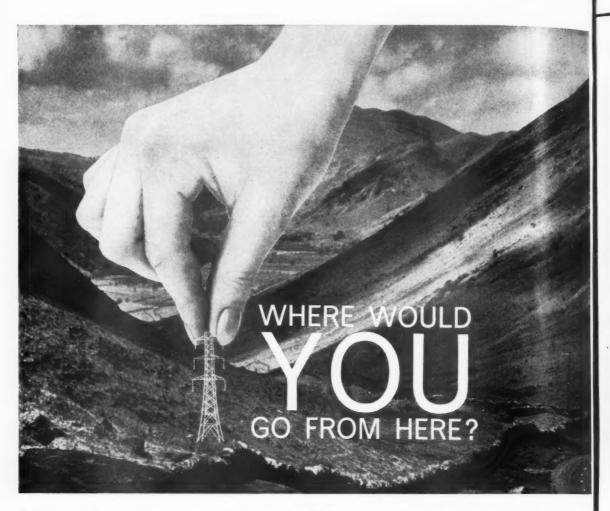
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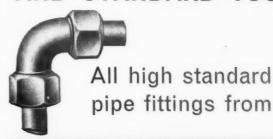
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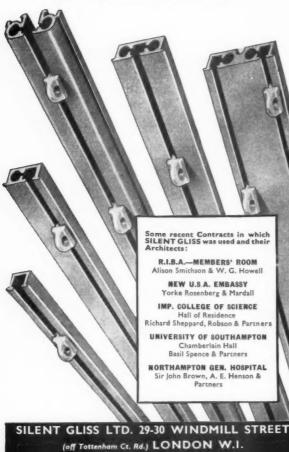
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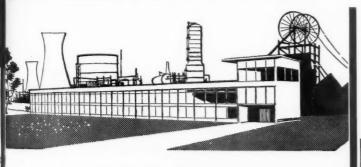
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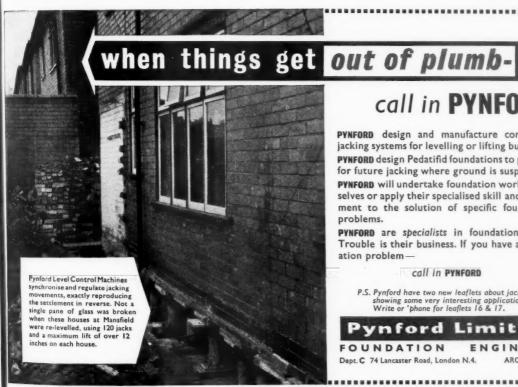
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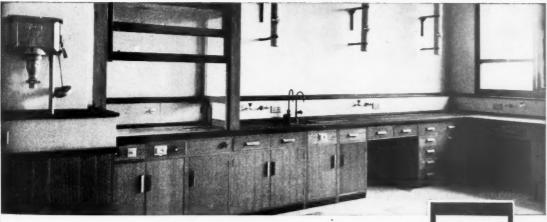


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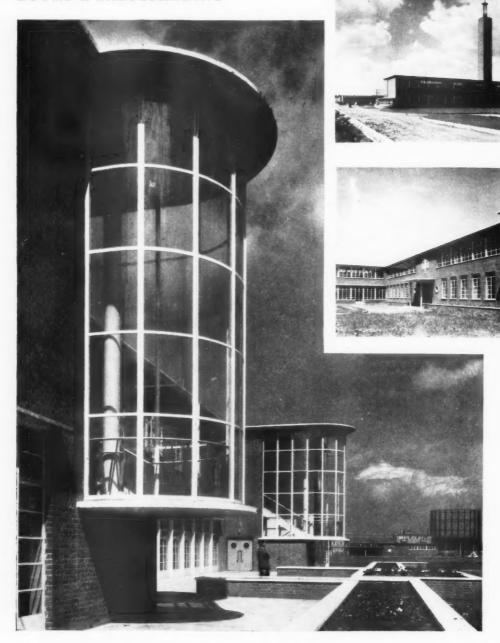
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